DOCUMENT RESUME

ED 261 788 PS 015 341

TITLE The Path to a Larger Life: Creating Kentucky's Educational Future.
INSTITUTION Prichard Committee for Academic Excellence, Lexington, KY.
PUB DATE 85
NOTE 185p.
PUB TYPE Viewpoints (120) -- Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC08 Plus Postage.
DESCRIPTORS Administration; *Classroom Environment; Community Colleges; Community Involvement; Curriculum Development; Day Care; Early Childhood Education; *Educational Finance; *Educational Improvement; *Educational Needs; *Educational Objectives; Educational Planning; Elementary Secondary Education; Higher Education; Preschool Education; *Professional Development; Teacher Education; Vocational Education
IDENTIFIERS *Kentucky

ABSTRACT

Intended as a plan for action, this report provides a wide array of recommendations for improving the education of children and adults in Kentucky. Chapter I discusses teachers and teaching in terms of classroom and school conditions for teaching, continuing professional growth and development, professional advancement and evaluation, and teacher education. Chapter II is concerned with the reconsideration of goals and curriculum and offers suggestions for reforming high school learning, extracurricular activities and athletics, school flexibility and incentives, and adult illiteracy. Chapter III focuses on leadership and governance, including evaluation and certification for administrators and principals. Chapter IV explores programmatic ways of preventing the social consequences of inadequate education and of responding to the conditions and needs of students. Chapter V briefly discusses indicators of school effectiveness for community use in school evaluation activities. Chapter VI offers recommendations for the future development of vocational and community college education, and Chapter VII explores ways to finance the improved educational program. Appendix A lists and describes indicators of effective schools, particularly student achievement, school and classroom environments, school leadership, comprehensive planning, career placement and further education, and community environment. Appendix B provides estimates of Kentucky's economy in the 1990s. (RH)

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THE PATH TO A LARGER LIFE: CREATING KENTUCKY'S EDUCATIONAL FUTURE

A Report of
The Prichard Committee for
Academic Excellence

1985

The Prichard Committee for Academic Excellence

The Prichard Committee for Academic Excellence was formed in 1983 to foster improved Kentucky education at all levels. The Committee's predecessor, the Prichard Committee on Higher Education in Kentucky's Future, prepared a comprehensive report on higher education in 1981.

The volunteers who comprise the Committee carry out their purposes by identifying critical issues and recommending appropriate action, and by encouraging the active involvement of other Kentucky citizens in their schools. The Committee is a private, not-for-profit corporation without attachment to any agency of government. It is supported by the contributions of its members and Kentucky businesses and foundations.

Oil Sketch by Robert Cloyd, 1981

Edward F. Prichard, Jr.
1915-1984

The members of the Prichard Committee for Academic Excellence dedicate this report to the memory of our late chairman, Edward F. Prichard, Jr. In the time we had with him we were inspired by his deep personal faith in the inherent potential of every individual and his optimism that citizens can make a difference.

It is education's responsibility, he believed, to "open the way to a larger life" for all people, to bring them "into fuller participation in the life of the community and a fuller enjoyment of all the benefits which this rich and productive society has brought to so many of us."

Ed Prichard believed these principles to be vital to Kentucky. We continue his work by dedicating ourselves to promoting them.

Dear Reader:

This report is the work of the volunteers from across Kentucky who comprise the Prichard Committee for Academic Excellence. Our members have spent many hours talking with other Kentuckians—teachers, school administrators, legislators, parents, students—and shaping our own dreams for Kentucky schools. We believe that the recommendations in this report will be useful to all Kentuckians and to those who are planning the future of our schools.

Our members have committed themselves to continuing our work for educational improvement in Kentucky. We know this improvement depends upon Kentucky's citizens. We will continue to help concerned citizens become more involved—a process begun with the Town Forums in November of 1984, when 20,000 Kentuckians in 178 school districts came forward to speak out about their schools.

We dedicate this report to our former chairman, Edward F. Prichard, Jr., whose death on December 23, 1984 was a deep and personal loss to us all. But his leadership was of a special kind, and his inspiration remains with us.

We are confident that all Kentuckians will join with us in our optimism about Kentucky's future as we offer our recommendations for improving the lives of our children through education.

Sincerely,

Dot Ridings

Dorothy S. Ridings
Vice-Chair

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Acknowledgements

We gratefully acknowledge the encouragement and support we have received from Governor Martha Layne Collins & Superintendent of Public Instruction Alice McDonald and their staffs.

We thank our staff for their dedication and skill—Dr. Robert F. Sexton, Scottie Kenkel, and Janice Juett.

More individuals have come forward with generous contributions of ideas and time than we can mention here. We offer our sincere thanks to those whose special efforts have made our work enjoyable and possible.

Robert Bell
Louis Bender
Paul Blanchard
Janet Bokemeier
Connie Bridge
James Broadus
Theodore Broida
David Burg
Helen Burg
Audrey Carr
Randall Dahl
Abe Fosson
John Frazer
Sandra Gubser
Jack Hatfield
Jon Henrikson
Steve Kay
David Keller
Audrey Kittrell
David Lusk
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Clifford Wallace
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Contributors

We extend our deepest appreciation to the contributors whose financial generosity made our work possible:

Ashland Oil, Inc.
Atlantic Richfield Foundation
Bingham Enterprises Foundation of Kentucky
James Graham Brown Foundation
W. L. Lyons Brown Foundation
Central Bank & Trust Company
Citizens Fidelity Bank
Crounse Corporation
Deloitte, Haskins & Sells
Druthers, Inc.
First Kentucky National Corporation
First Security National Bank & Trust Company
John Frazer
Gateway Press
Gray Construction
Morton Holbrook
Humana, Inc.
Brereton C. Jones
Kentucky Economic Development Corporation
Kentucky Export Resource Authority
Harry and Maxie Laviers Foundation
Wade Mountz
Norfolk Southern Corporation
Nancy J. Penney
Philip Morris Corporation
B. F. Reed
Ruth Roach
E. O. Robinson Mountain Fund
Jean Roserberg
Phillip J. Shepherd
South Central Bell
William B. Sturgill
Texas Gas Transmission Corporation
W. T. Young

Hundreds of businesses, organizations and individuals, in communities all across Kentucky, contributed to the local town forums in November, 1984. We extend to them our sincere thanks.

For their contributions to support the state-wide town forum effort we owe special thanks to:

Ashland Oil, Inc.
Bon Advertising
Druthers, Inc.
Kentucky Broadcasters Association
Kentucky Chamber of Commerce
Kentucky Department of Education
Kentucky Educational Foundation
Kentucky Educational Television
Kentucky Humanities Council
Kentucky Jaycees
Kentucky Press Association
B. F. Reed
South Central Bell
Superintendent of Public Instruction
The newspapers, journalists and broadcasters of Kentucky

Preface

This report provides a wide array of recommendations for improving the education of Kentucky children and adults. The committee has not addressed every issue or concern, but only those it concluded are most central to improvement and most in need of suggestions from concerned citizens.

As the committee prepared its recommendations its members were constantly aware that many others were also proposing recommendations for school reform—the Governor's Council on Educational Reform, the superintendent of public instruction, the Chamber of Commerce's Commission on Excellence, and other state and local organizations. The committee has not attempted to duplicate these other efforts or to consider every issue they address, and it recognizes that many recommendations from these groups also have great merit.

As committee members see it, their responsibility as concerned citizen volunteers—not professional educators, experts, or legislators—is to propose goals and aspirations and broad solutions based on common wisdom. It is not their purpose to propose detailed plans or specific legislation and regulations. The latter task falls to public officials to whom the voters have given responsibility for the quality of public education in Kentucky.

The recommendations in this report should be read as a plan for action. The plan is meant to encourage discussion and to be discussed, and then to be acted upon. It may take many years to revitalize our educational system. Some of our recommendations are meant to be implemented immediately, others in future years. The committee will continue to stimulate and promote this discussion and the action which must follow.

The committee will see that its ideas are presented to the public, to the governor, the legislature, the State Board of Education, the superintendent of public instruction and all others who are concerned about Kentucky education. We encourage our readers to think with us about our recommendations and the promise of sound education for a thriving Kentucky.

Robert F. Sexton
Executive Director
May 1, 1985

Introduction

I must emphasize that whatever the length of the process, whatever the long road uphill that faces us, the time to begin is now.

Edward F. Prichard, Jr.

We believe that Kentucky has no other choice but to make a new commitment to its young people and to itself. We must "open the way to a larger life," as our late chairman put it, for an entire people. In this report we have fixed our sights on what we believe many Kentuckians want and expect in their futures; we do not dwell on our past or our problems. We believe that improvement is possible, that we have the capacity—all we need is the will and the imagination. If Kentucky makes the necessary commitment—marshalls its positive spirit, its creative leaders, and its concerned citizens—it can begin the long march toward improving its schools.

Past conditions have weighed heavily on our Commonwealth; we have been burdened with negativism and with low expectations. We must throw off this burden.

Kentucky's present conditions have been well documented; the current movement for educational reform comes from an awareness of our problems. Just as this committee began work on this report, Louisville **Courier-Journal** reporters Richard Wilson and Richard Whitt wrote a comprehensive series of articles on Kentucky schools. The full page cover of the newspaper's 1983 special edition carried this message:

CRISIS IN KENTUCKY'S CLASSROOMS
REPORT CARD
UNSATISFACTORY

Fact: The least-educated adult population in the nation. In 1980 only 56 percent of those 18 and over had a high school diploma. Only 11 percent had a college education.

Fact: One of the highest high school dropout rates in the nation. In 1981, Kentucky's rate was 33 percent; only eight states did worse.

Fact: Low per-pupil expenditures. Last year [1982] Kentucky spent $2,291 for each child in its public schools; only eight states spent less.

Fact: Below-average achievement test scores. For Kentucky students entering the eight state-supported universities, the average achievement-test score was below the national average last year and nearly 10 percent lower than in 1969.

Fact: Relatively few students taking advanced courses in English, math, and science. Last year [1982] only half the students in public high schools took any math at all. One percent took calculus; 1 percent took physics.

We believe that the people of Kentucky want a better life for themselves and their children. We believe Kentuckians want to look to their children's futures with optimism, hoping they will be prepared for the most healthy, productive, and rewarding lives their abilities permit them to achieve. Kentuckians want a high quality of life, good employment opportunities, competent and efficient government and social services, and confidence in their personal futures.

Reaching this better life will require major reforms, and we propose them in this report. While not all of these changes will be accomplished immediately, they can be accomplished over time. Many of these include ideas which are just beginning to be heard in other states and around the nation; we should not be afraid to take the lead in certain areas of reform. A state like Kentucky must leap over its past to a new future. We must seize this historic moment when opportunity is at its highest point in decades. This is not the time to shy away from the fundamental revitalization we need.

Kentucky has made a commitment of this magnitude before. Amid the current criticism of our schools it is possible to forget what our educational system has accomplished. As one example, in the 1950s Kentucky and southern states began a remarkable effort to improve their high schools. Kentucky pursued, with an infusion of talent and financial resources, the goal of increasing dramatically its high school graduation rate. The results of this federal and state commitment are a genuine success story. Kentucky more than doubled its high school graduation rate in one generation. In 1950 only 33 percent of Ken-

tuckians 18-25 years of age had graduated from high school. By 1980 that figure had grown to 69 percent. We must, and can, make a commitment on this scale again.

Our committee began its work on this report in 1983, a period of rising criticism of American and Kentucky education. Numerous national reports pointed to the "crisis" of American schools, particularly high schools, and suggested a wide range of reforms.

Our first task was to attempt to gain perspective on these reports. Shifting public expectations have prompted flurries of school reform throughout our nation's history. As one historian has explained:

> Throughout history, Americans have expected much of their educational institutions; sometimes schools have been expected to take on responsibilities for which they were entirely unsuited. When they have failed, it was usually because their leaders and their public alike had forgotten their limitations as well as their real strengths.[1]

Examining the full pile of twenty-five national reports, we asked, "Will lasting reform come of their recommendations?" With some notable exceptions, our answer is "no." Many of these reports ignore the context in which schools operate and students live. This context includes changed economic and social conditions, an international "information revolution," increased drug and alcohol abuse, poverty, teenage pregnancy, the pervasive influence of television, changing employment opportunities, a rising portion of children living with only one parent, and many more factors.

A state's educational system reflects its people and their aspirations, its government, its economy, and its body politic. Our educational health, economic health, and political health are intertwined. When the economy or society or politics changes directions, as all are now doing, the educational system is expected to respond. When expectations change, schools are expected to change.

We stress this context because in Kentucky it is impossible to overlook the connections between the condition of our people and the condition of our schools. Knowledge of these connections is not new. A Kentucky report written sixty years ago made the point:

> It is no mere coincidence that Kentucky ranks low among the states, on the one hand, in per capita income and wealth, and on the other hand, forty-fifth among the states in the percentage of school population at-

> tending school, forty-first in expenditure per teacher for salaries, fortieth in average annual expenditure per child of school age . . . . There is undoubtedly a direct relationship between Kentucky's general economic status and her educational backwardness.[2]

Kentuckians must save their children from being the unwilling victims of their history. But changing the cycles of history requires great effort and sacrifice. It requires holding out high expectations. And it requires getting at the root of the problem, with complicated solutions for complicated problems. There are few easy answers.

Recognizing the size of the challenge, we began work on this report with the beginning principle that: "Our schools and colleges will be better when people care enough to make them better. We believe that the public knows that Kentucky's schools and colleges need improvement."

We still believe that the key to change is increased public commitment and successful citizen involvement in the schools. We proposed in 1983 to begin "a massive public conversation about Kentucky's educational needs." The beginnings of that conversation came in the "town forums" of November, 1984. At that time 20,000 Kentuckians, in 145 communities representing 178 school districts, gathered on one night to consider what they expected of their schools. Most rewarding, a large number of these communities, through the hard and courageous work of local volunteers, determined to continue their work through additional local activities. So we know that concerned people are there—they are all across Kentucky. Their concern and their courage must be sustained.

Basic Themes

Our recommendations are organized in chapters by broad areas which we, and others who have studied education, believe need attention—teaching, goals and curriculum, leadership and governance, a new commitment to children and youth, indicators of effective schools, vocational and community college education, and finance. These chapters are the work of subcommittees which studied each topical area.

Our ideas about these issues and our recommendations in these chapters are bound together by central themes which we wish to make clear. These themes provide unity for the recommendations throughout this report.

First, running through all our recommendations is our firm commitment to the necessity of increased and deepened public involvement and concern for quality education. It was James Bryant Conant who said, many years ago, that "the road to better schools will be paved by the collective actions of the local citizenry. The responsibility rests on every citizen in the land." We agree.

It is often said that Kentuckians do not value education and that low expectations are rooted deeply in our history, our economic condition, and our social structure. Changing these attitudes and raising these expectations, because they are deeply rooted, is a great challenge. We believe that the key to meeting this challenge is finding those people who value education highly, and then arming them with knowledge and enthusiasm so that they can be effective.

All of our recommendations are designed to encourage citizen involvement. Citizens will be involved if they believe that their efforts will have positive results, they see that schools are improving. If they believe that financial resources will be spent well, they will be more agreeable to increased taxation. Several recommendations are aimed specifically at helping citizens be engaged: those which give citizens "indicators" with which to evaluate their schools; those which encourage citizen involvement in local planning, in evaluating schools and teaching, and in setting goals; those which suggest ways to open schools for the use of all citizens; those which endorse community volunteer programs; those which encourage the evaluation of how well schools involve parents and citizens; and those which support helping young parents become more capable of intelligent involvement in their children's education.

Citizens will not be involved if they are discouraged by local school politics. Where local politicians have exerted a deadening influence over the spirits of concerned citizens, this influence must be removed. We offer recommendations for encouraging those many local officials who place the interest of school children over political self-interest. We also suggest ways of evaluating local performance, ways of training and preparing local officials and administrators, and ways to use state authority to set high standards. At the state level we believe that continuous professional leadership must be provided by a state superintendent of public instruction selected for professional qualifications, not by election, and we propose a constitutional amendment to effect this reform.

Second, our recommendations are tied together by the belief that there is a direct connection between the health of Kentucky's economy,

its society and its families, its government and its schools.

The relationships between poverty, nutrition and health, underemployment, unemployment, and low educational achievement are clear. We have been locked in cycles of poverty and ignorance down through several generations. It is "no mere coincidence," in the words of the 1924 report cited above, that a state now ranking fiftieth among the nation's states in adults who are high school graduates also ranks high in numbers of children who continue to drop out of high school, or that we rank low in per capita income and also in expenditures for education.

We must create new cycles—cycles of educated people and economic growth, of economic health and healthy schools. Our recommendations propose specific ways to create these cycles.

The cost of education must be seen as an investment in the future. We urge this investment in programs for preschool education, for discouraging teenage pregnancy, for child care, for helping young mothers and fathers be better parents, and for child health and prenatal care.

If the public makes these investments, they have a right to know what their money will buy. State and local school officials must produce schools and educational programs of good quality, and they must hold their work up for public scrutiny.

The **third** theme running through our recommendations is concern for what we teach in our schools and the ways we teach it. When we observe the general condition of schools in Kentucky and across the nation, of Kentucky and its people, and the historical cycles we must break, we conclude we need bold solutions. We have heard the plea of a teacher who wrote to us and asked, "When are we going to recognize that we are dealing with an antiquated system?"

At the heart of good education is setting clear and straightforward goals for the schools and then holding them responsible for accomplishing these goals. Amid the national cry for "excellence," we must remember that schools must help all young people reach their full potential. No one should be overlooked.

In the early years of school we encourage the greatest attention to literacy, the ability to understand information and to communicate one's ideas. By literacy we mean all forms of communication: speaking, reading, writing, listening, analyzing, and thinking, and the language of mathematics and the computer. Communication is taught best through the concentrated and individual attention of good teachers. To do this teaching approaches must be varied; class sizes must be

reduced; and new teachers, teachers' aides, and tutors must be put to work in the schools.

At the high school level our recommendations emphasize motivating students, engaging them actively in learning, and taking advantage of youth's natural urge to assume responsibility and to be treated with respect. We are concerned that recent trends in Kentucky and across the nation which demand that students take more courses and "work harder," without considering student motivation or the condition of adolescents, will end with little accomplished after one step. While important, this first step is not enough. The call for stiffer requirements—more math, science, English, foreign languages—can be misleading if we believe it is all we need.

Americans are just beginning to understand the implications of the vast changes inherent in the rapidly expanding and international "information society" of which we are a part. We do know, however, that education for active responsibility, for integrating complex information, and for creative change and adaptability are needed. Making choices is an individual's core responsibility, but it is becoming more difficult. We believe these complex changes are forcing upon our schools, particularly our high schools, challenges we can only barely perceive now.

As a starting point for reform of the high school, we recommend fundamental structural reorganization implemented through several pilot programs. The reorganized high school should encourage all students, those who have limited talent and those who have great talent, by motivating them to be actively engaged in learning, rather than routinely fulfilling hourly requirements. High schools should be organized so that students can progress at different paces and with different schedules, receive individual attention, work more independently, and be expected to master clearly established competencies, not merely complete a required number of courses in regimented steps. We also recommend that the high school experience be complemented by a period of youth-community service, taking advantage of adolescents' natural urge to get involved and make a contribution, to take responsibility, to learn about work, and to learn the lessons of experience.

Fourth, our recommendations concentrate on enhancing the professional capacities of those who work in our schools—teachers and administrators and school staffs. Because enhancing this capacity is a complex challenge, we urge a patient and cooperative spirit. We are concerned, as was M.. Prichard, about a "danger of creating the psychology that the teachers are the villains, and that the way to improve educa-

tion is to humiliate and ridicule them." He suggested that "rather than placing our teachers in the pillory for public abuse we should ally with the best and most professional of them and ask for their help." All reforms should be designed to bring out the best in teachers, to help them cope with sometimes threatening change, and to give them the support and encouragement they need to perform well.

Our recommendations suggest many ways to enhance professional capacity. These include improving the conditions in which teachers work; providing more time for teaching and more time for professional development, both in the school day and the school year; lengthening the employment period and increasing financial compensation; evaluating, recognizing and rewarding exceptional performance; improving the leadership capacity of administrators; substantially reforming the ways that teachers are taught through colleges of education and continuing education; and many more. While we believe that increased financial compensation is needed to attract and keep good people in the teaching profession, we believe that increased compensation is not the most important of the many ways the teaching profession can be enhanced; and many teachers agree with us.

Fifth, our recommendations are tied together by the belief that all of education is interwoven in a "seamless web." As the state reforms its educational system, it is critical that it stimulate and support **all** the threads of this web—preschool education and care for very young children, kindergartens and grade schools, the education of adolescents, postsecondary programs at the vocational, associate and baccalaureate levels, and graduate and professional degree programs. The strength of our system will be determined by its weakest strand. Our grade schools, for example, will be effective only if young children enter them prepared and eager to learn **and** if their teachers have been well trained in colleges of education.

The recommendations in this report concentrate on education at the preschool, grade school, and high school levels. We also offer specific recommendations for enhancing postsecondary and adult education, especially a neglected area—vocational and community college education. Our recommendations show how the vocational link in the chain of education can be forged with more attention to the needs of the Kentucky economy, more thoughtful organization and planning and structural reorganization.

We addressed a multitude of concerns about higher education in our previous report, **In Pursuit of Excellence**. In that report, we suggested specific changes which we believed would encourage excellence. But

we also said that our system of higher education was in great danger—we said that without reform mediocrity, not excellence, would result from the investments Kentucky has already made.

We are still concerned about higher education in Kentucky. The national and state concentration on elementary and secondary education contains within it the danger of neglect for higher education. It is imperative that this potential neglect be changed to serious concern for the health and quality of colleges and universities. In Kentucky and across the nation, the most challenging years for higher education may lie ahead. As future generations may call the 1980s "the decade of the schools," the 90s will be "the decade of colleges and universities." It is imperative that state leaders, concerned citizens, and college administrators and faculty continue to demand much of higher education and provide the support and leadership needed, so that it contributes to a prosperous Kentucky.

Sixth, our recommendations are tied together by an emphasis on the need for leadership. While we believe increased financial support is imperative for improving the education of Kentucky's children, we also believe that increased resources must be accompanied by increasingly responsible and creative leadership.

Leadership for education comes from many places—from the governor and superintendent of public instruction and the General Assembly; from school principals, superintendents, and teachers; from citizens and parents. This leadership must, by its responsible stewardship, assure the public that financial resources will be spent well. Leadership must also find new ways of engaging the public and students in their schools, must provide the means to reach desired ends, and must show that the development of school children is of paramount importance. While many of our recommendations speak of ways to enhance leadership, above all we urge those in positions of leadership to seize the opportunities of this moment and to move Kentucky forward.

Seventh, we know that increased funding is not the sole means of improving schools. But we also know, as Mr. Prichard said, "there cannot be a fundamental reform, a fundamental rejuvenation, a fundamental rehabilitation in our educational system in Kentucky without additional resources." The reforms suggested in this report and elsewhere have costs.

Kentucky spends less on its schools than all but six other states. These limited resources are distributed so that children in some districts have much more resources available than those in other districts—the goal of achieving equity in funding across the state has not been reached.

Public opinion polls show a large number of Kentuckians are willing to pay additional taxes for improved schools.[3] Many Kentuckians realize, as Mr. Prichard said, that we have to "invest at the expense of the present in order to create wealth for the future."

We believe that more Kentuckians will agree to invest more in education if they are shown that increased financial resources will result in increased quality. We strongly recommend that the leadership of this state—the governor, the legislature, and Kentucky's employers—apply their energies to showing people that additional resources are needed and will be spent wisely.

Our specific recommendations ask that the governor and General Assembly consider increased revenue from one or more taxes which are now "underutilized," that increased local funding be required, that power equalization funding be increased, that House Bill 44 be repealed, and that property valuation administrators be selected for professional qualifications and not elected.

Finally, our recommendations are tied together by the view that deep and lasting reform will take many years to accomplish. The character of Kentucky education comes from generations of tradition and attitudes and from fundamental economic conditions, and these will not change quickly.

In recent years Kentucky has taken very important steps toward improving its schools. We have seen these steps in the actions of the governor and the superintendent of public instruction, in the reforms of the 1984 General Assembly, in the behavior of numerous educational organizations, in the hard work of several committees and commissions, in the enthusiasm and commitment of the business community, and in the public interest expressed in the 1984 town forums.

But these are the first steps in a long journey. Our recommendations, taken together, comprise several parts of a twelve-year agenda for the improvement of Kentucky schools. Some of our recommendations are meant to be accomplished now and others in a few short years; others will take many years to accomplish.

Through the years needed to improve our schools continued public attention and vigilance will be necessary. All who are concerned about Kentucky schools must watch the progress which is being made, see whether reforms produce the desired results and whether more changes are needed, and determine whether unforeseen events require new solutions. The public must find the ways and the will to encourage movement along this twelve-year path and to communicate their views to those who must, in the words of the Kentucky constitution, "provide for an efficient system of common schools throughout the state."

FOOTNOTES

1. Diane Ravitch, **The Troubled Crusade: American Education, 1945-1980** (New York: Basic Books, Inc., 1983), p. xii.

2. The Efficiency Commission of Kentucky, Volume II, **The Government of Kentucky**, Frankfort, 1924.

3. Asked if they favored or opposed "increased taxes to raise money for schools," 49.2 percent in a state-wide poll expressed favor; 46.1 percent, opposed; and 4.7% percent, "other." **Issues in Education: A Report on Public Opinion in Kentucky**, Survey Research Center, University of Kentucky, 1983.

I
Teachers and the Teaching Profession

> The heart of education is still the relationship between the teacher and the student in the classroom . . . This question of the improvement of the quality of teaching, of the esteem and the respect for the teaching profession, the inspirational relationship between teacher and student, is at the heart of the educational process and all others must cluster around that idea.
>
> Edward F. Prichard, Jr.

We have spent a great deal of time talking with Kentucky teachers. We have visited their schools, met with their professional organizations, and heard the urgency of their appeals in town forums across the state. An open letter encouraged many teachers to write to us; their letters were a source of both good ideas and great alarm. Teachers all say they need help; great numbers of them are ready for a change. In this context our report is not a research document, but rather an interpretation of what we have heard. Our suggestions are based on the best current analysis of the teaching profession and upon what Kentucky teachers said to us.

Good teaching and good teachers are keys to good schools and good education. Yet the way teachers are trained, selected, and hired; their working conditions; and the condition of the children they teach have changed dramatically during the last generation. For our subcommittee the issues inherent in improving teaching are so numerous, and their nature so complex, that our primary task has been to concentrate and narrow our focus to the most critical concerns.

The essential challenge of great improvement in the teaching profession—obtaining better teaching and recruiting and keeping good teachers—is a massive one. The profession has changed greatly, and the problems we identify have long historical roots. Improvement will not come quickly or easily. We are, however, optimistic that progress can be made if enough imagination, creativity, and resources are applied.

While interest in education has heightened, far too many suggestions have addressed problems piecemeal. Society must realize that no single solution will solve a problem of such dimension. The problem cannot be neatly dissected. An integrated plan with fundamental reforms is required.

The Social Context of Teaching

The American work force is being challenged from many directions. The "productivity" of the nation's economy and its workers is now a pivotal national issue and will remain so over the next decade. Hard questions are being asked. The organization of work and the work place, the motivation and leadership provided to workers, and the competency of American workers are all being reexamined. As the nation's economy becomes more centered on information and services than on manufacturing, labor will be reconcentrated, relocated, and retrained. Institutions and organizations which are achieving excellence have made hard decisions about their labor forces and have discovered new, although often quite simple, ways to reorganize and to motivate.

The changing condition of the work force will affect some workers more than others. And while teachers will be greatly affected, they are not alone—so will college professors, skilled laborers, steel and automobile workers, middle management, information handling clerical workers, health care professionals, and many others. Change may be slow and painful, but change is inevitable. Since change can be threatening, few occupational groups will find needed changes entirely pleasant.

In this context, teachers in Kentucky and the nation will face several new challenges:

> Over the next two decades, American education will redefine the role of the teacher. Teaching will come to mean less transmitting information and more helping students to grow and develop through the use of their creative abilities, independence, and energy. The ideal teacher will facilitate learning, rather than hand down specific information.

> More will be expected of teachers in the future. Demands will increase for continued professional development and growth, for rigor in teacher training programs, for creativity and commitment, and for accountability and evaluation.

> With increased community expectations, many changes will be made in the ways teachers work—in daily working conditions, in curricula and

school organization, and in the nature and quality of administrative leadership.

Recommendations

Our recommendations, when taken together, are aimed at correcting a central problem for the teaching profession—the demoralizing lack of public support. Regard for teachers has declined in recent years:

> Seventy-five percent of those citizens surveyed in 1969 said they would like to have a child of theirs take up teaching in the public schools as a career. In 1972, the figure was 67 percent. By 1983, it was down to 43 percent. Parents' day-to-day support for teaching has fallen, too. PTA membership declined from 11 million in 1966 to 5.9 million in 1981 (although part of the drop was due to declining enrollment). Over that same period, the proportion of teachers belonging to a parent-teacher association dropped from 78 percent to 57 percent . . . .
>
> Indeed, although parents were once teachers' reliable allies in a campaign against ignorance and misbehavior, that alliance has suffered from neglect, or worse.[1]

Good teachers deserve public support and encouragement. We believe public regard can be revitalized if teachers and public officials attack forthrightly four areas of deep public concern:

I. Classroom and school conditions for teaching
II. Continuing professional education and development for teachers
III. Professional advancement & evaluation
IV. Preparation of teachers in colleges of education.

I. Classroom and School Conditions for Teaching

The condition and climate in which teachers work is probably the single most important factor affecting the quality of the teaching profession. The Carnegie Foundation for the Advancement of Teaching reported:

> Surveys reveal that teachers are deeply troubled, not only about salaries, but also about loss of status, the bureaucratic pressures, a negative public image, the lack of recognition and rewards. To talk about recruiting better students into teaching without first examining the current circumstances that discourage teachers is simply a diversion. The

push for excellence in education must begin by confronting those conditions that drive good teachers from the classroom in the first place . . . .Improving working conditions is, we believe, at the center of our effort to improve teaching.[2]

Kentucky teachers have told us:

"We need fewer interruptions in class time. My kids are taken out of class to line the football field and elect the homecoming queen."

"I have no time for course planning and preparation."

"We need time to go to the restroom."

"We never have textbooks or materials for all the students."

"We need to have lunch on our own, not with the kids."

"Rooms are overcrowded—the 20 student average classroom size is a farce."

"We have to do too many clerical jobs."

"We need support and leadership from the principal."

"We need support and not constant criticism."

"We need some place to work, some private working space."

"Politics and nepotism are the rule in hiring."

We believe that if most citizens, parents, or persons working in other fields would spend one day in the teachers' work environment, they would be appalled. We also believe that for many Kentucky teachers, improved working conditions are more important than improved salaries. In some areas of Kentucky heroic teachers work in such disadvantaged conditions that only their commitment and dedication make learning possible.

If we expect teachers to be professionals, then they must be treated like professionals.

We therefore recommend:

A. **The Kentucky Board of Education should see that each school district creates a special commission (composed of teachers, citizens, and administrators) to suggest specific changes in the quality of working conditions for the district and its schools.** These commissions should specifically investigate and implement appropriate changes, including but not limited to:

- duty-free lunchtime and other personal time
- required planning periods
- improved personnel management practices, and involving teachers in decision making
- reducing the number of nonteaching responsibilities
- adequate and current textbooks and supplies
- maximum class size
- quality of facilities

B. **To help implement the above, the State Board of Education should require that each teacher, including those at the elementary levels, be assigned a planning period each day.** Adequate funding of the planning period is required, but we believe that by creative management these additional costs can be reduced.

C. **The State Board of Education should provide specific guidelines for the allocation of teaching time, with special emphasis on reducing class interruptions and nonteaching assignments.**

D. **Pending careful analysis of the way teachers' time is spent, aides or paraprofessionals should be employed to assist teachers, relieving them of certain duties, such as clerical work and supervision of the lunchroom, playground, busloading, etc.** Some of these aides might be retirees or high school students in youth-community service. (See Chapter IV.)

E. **A special "teacher excellence" fund should be established in each district to help teachers break their daily routines and the rigid patterns of their careers. This fund would assist teachers, subject to appropriate approval, to take sabbaticals; engage in special projects or study; undertake short-term learning, administrative, or research assignments, or attend educational activities.**

II. Continuing Professional Growth and Development

Teaching is demanding work. It combines intense personal involvement with difficult daily working conditions. The best teachers try to stay abreast of developments in the specific fields they teach and in current teaching practices. Unlike many other professions, serious limits

on time and finances inhibit challenging and stimulating professional development. For example, the current "in-service days" are inadequate, both in time and substance. Opportunities for working cooperatively with other teachers, for attending professional meetings, and for specialized learning are more rare for teachers than for other professionals. Again, if we expect teachers to be professionals, they must be treated like professionals. Teachers tell us:

> "In-service education in the past has really been a farce . . . anything put on paper as in-service education was acceptable and most of the time there was never any follow-up. In-service days are full of descriptions of materials we cannot afford, by instructors from fields other than education. Many have never been in the classroom. How do they know what I need?"
>
> "We need time to meet with parents and administrators."
>
> "We should have continuous professional development, just not a few in-service days."
>
> "Teachers should be involved in planning in-service."

"We need professional growth plans for nontenured and tenured teachers."

Fundamental structural change is needed to help teachers reach their professional potential throughout their careers. While we suggest specific modifications for continuing education and in-service education hereafter, our central recommendation is that teachers be given the opportunity to be employed for twelve months, not nine months (or 185 days).

A. Twelve-Month Employment

Real school improvement requires fundamental changes in the way we think about schools. The primary obstacle to adequate time for professional development and class planning, to full professional status for teachers, and to increased teacher salaries is that most teachers are employed for 185 days each year. In effect, teachers are put on "unpaid leave" for three months. When teachers ask for more time for planning, preparation, and self-education, or for higher salaries, they are often rebuffed with "but you only work nine months." Employment for a full year would:

- provide time for yearly planning, either by teachers individually or by school committees;

- provide time for staff development and continuing education;
- provide time for additional education for school children or for tutoring children who are achieving below their abilities;
- increase salaries.

We recommend that teachers be allowed to work for twelve months and be paid for that work if they volunteer to do so. Year-round work for teachers will be a dramatic rearrangement in the teaching profession. While we recommend that this twelve-month employment be voluntary, we hope that by 1988 approximately 10 percent, and by 1990, approximately one-third of all teachers, will be employed under this arrangement.

Teachers working for twelve months would have specific professional expectations for the use of their time. Some might plan new courses, review texts, or prepare instructional materials. Others might attend special summer seminars or institutes, take sabbaticals for individual learning, or to conduct research projects. Others might tackle special administrative tasks or special studies for the Board of Education or work with the community and business.

Twelve-month employment would make it possibile for certain school districts to experiment with expanding the school year to four quarters, or twelve months. Under such a system, students and parents would choose which three quarters each student would attend, while teachers could choose to work all four quarters.

An increase in the employment period might be accomplished in phases, with all teachers moving to ten months (or 200 days) immediately and to twelve months at a later date.

B. Continuing Professional Education & In-service Education

A twelve-month work year for teachers would provide the means for many teachers to participate in increased continuing education activities. Professional development is essential for dynamic schools that continue to improve. The ideal process of professional development has been described as a process designed to foster personal and professional growth for individuals within a respectful, supportive, positive organizational climate and having as its ultimate aim better learning for students and continuous, responsible self-renewal for educators.

A flourishing school has an environment in which educational professionals work continuously to improve their skills. The

challenge for each school district is to develop a system of professional growth which will improve both the organization and the individual teacher.

Of all the areas related to teaching, in-service training has triggered the most frequent and vehement complaints. Many teachers, administrators, and college professors view it as a waste of time. However, the same people think the idea of in-service education is important.

We need a better organized system of professional development—one that is thoughtfully conceived at the local district level, with the teachers involved in determining their training needs; one that provides flexible approaches to learning; and one that provides adequate time and financial resources to support it.

Good continuing education must be carefully planned and structured. It should have specific goals. For example, most teachers will need continual exposure to new knowledge in the fields they teach. College faculties should provide field-based and on-campus refresher courses in content areas that local schools set as priority areas.

To accomplish continuing education goals we recommend:

1. **Professional Growth Plans**

Each local school district should develop and maintain a comprehensive plan for continuous professional growth for its teachers and staffs. Teachers, principals, administrative staff, support staff, and school board members should all be involved in this plan's development. University faculty members, especially from subject matter disciplines, should also be heavily involved.

Professional development should be flexible. It should include on-the-job training with technical assistance by fellow teachers, principals, consultants, university faculties, experts, etc. To be flexible, especially for teachers under the twelve-month contract, continuing education should provide ways for rearranging each teacher's responsibilities. These might include rotating teachers to allow time away from classrooms to work on curricula, to provide technical assistance to others, or to contribute to community projects. Other activities might include sabbaticals, nonteaching assignments, summer employment, or new responsibilities for a finite period of time. (This flexibility might require assigning extra teachers to a school to maintain continuity of instructional programs.)

Certification rules governing continuing education should be flex-

ible enough so that study in critical content areas can be undertaken. Under present regulations, only graduate level university courses can be used toward Rank I certification, whereas undergraduate courses (particularly in science and math) are often more appropriate training.

2. **Teacher Centers**

School districts should create "professional development centers," or "teacher centers," to implement comprehensive professional development for teachers.

These professional development centers should assist teachers in determining their own training needs. They should identify priority training needs and ways of providing that training. Exceptional teachers should be used to help other teachers. Teachers should use the centers to share ideas and work in groups, to study different teaching styles, or to develop new curricula. Staffs should be assigned to assist teachers in the development of individual professional growth plans. Rather than one-time seminars, the centers should provide on-going and intense assistance to teachers.

Pilot programs for teacher centers or professional development centers should be established and supported by the State Department of Education.

3. **In-service Training**

The current arrangement of in-service training, which is established at four days by state regulation, should be modified so that additional release time, or additional work days for professional development, can be assigned.

Teachers cannot be expected to benefit from in-service which is undertaken after a rigorous school day or on weekends—other employees and professionals are not expected to grow and develop in such a climate. Therefore, school districts should provide adequate time throughout the school year for teacher participation and for continuing professional development.

Districts or schools sometimes need to schedule in-service training to introduce new curricula, provide information on new programs, develop new procedures, etc. This training, while necessary, should not be considered a substitute for professional training of individual teachers.

4. Teacher Recertification

Learning to teach does not end with the receipt of a college degree or with permanent certification as a teacher. Present certification requirements in Kentucky provide permanent certification when a master's degree is received (it must be received in ten years) or when a five-year initial program, including a master's degree, has been completed.

To encourage continued professional growth, we recommend that state authorities issue teaching certificates which are renewable every five years and are not permanent. The State Council on Teacher Certification should provide regulations to identify those continuing education programs (such as those described above) which satisfy requirements for recertification. The recertification process must follow upon the activities of the suggested teacher centers and be a part of a school district's comprehensive professional development program—without improved services, recertification is meaningless. The third critical element for recertification is improved university courses for teachers. As one teacher said, "If universities offer good courses, teachers will take them." Evaluation of classroom performance should also be a basic part of the recertification process.

III. Professional Advancement & Evaluation

In all occupations a central, and sometimes difficult, concern is evaluating performance and a professional advancement system based on that evaluation. Performance in teaching is particularly hard to measure, and for decades education policy makers and teachers have wrestled with this issue. Twenty years ago Governor Edward T. Breathitt raised the issue in Kentucky. He said:

> . . . it is a major responsibility of the teaching profession, as well as other professions, to evaluate the quality of its services. We must have continued research to discover means of objective evaluation of the performance of all professional personnel and their interrelationships for the purpose of improving instruction. I'm also inclined to believe that we should begin some type of recognition for the career teacher—for those teachers who exhibit the additional interest and ability.[3]

We are concerned about the possibility of a divisive and destructive confrontation between the teaching profession and the public. This confrontation has occurred in other states where legislators and teachers have battled over teacher evaluation, merit pay, competency testing,

and career ladders. In the most divisive cases, determined elected officials confront equally determined, organized teachers who close their minds to valid improvements. As a result, public attitudes in some states have become more hardened and more negative. The profession of teaching, the children, and the public all suffer from such confrontations.

Wise leadership from public officials and teachers can avoid this damage. Wise public leadership must emphasize that, while teachers must meet new expectations, teachers must also be adequately rewarded. For teachers wise leadership must say, "We are up to these challenges, we will contribute our ideas about constructive reforms and we will not be an obstacle to progress, but we must be treated with dignity and be respected as professionals."

Kentucky is currently considering a career ladder through the "Committee to Study a Career Ladder for Teachers," mandated by the 1984 General Assembly. Teacher evaluation was also mandated by the 1984 General Assembly, and regulations for these evaluations have been approved by the State Board of Education. Several of our recommendations are germane to these discussions, but we have not offered comprehensive recommendations on this subject because of these official state actions. We feel strongly, however, that certain fundamental principles should be incorporated into any system for encouraging performance and professional development and for teacher evaluation.

A. **Principles for Recognizing Performance & for Evaluation**

The Commonwealth of Kentucky must provide salaries proportionate to the increased expectations for teachers and sufficient enough to encourage competent people to enter and to remain in the teaching profession. Substantially increased financial compensation, however, should be provided only in conjunction with an evaluation system that fairly assesses teacher performance and encourages professional development. Salary increments should be based, in part, on performance.

Not all school administrators and principals have the necessary training and experience to evaluate teachers; few evaluation programs are currently in place. **Whatever program is established, adequate time and financial resources must be made available for this necessary training and other preparation.**

Principles for Evaluation

Any plan for evaluating teaching and teachers should incorporate the following principles:

- Adequate time and resources should be provided before an evaluation system is put in place, so that school administrators can be adequately trained.
- There are better and more constructive methods of evaluation than standardized examinations for currently employed teachers.
- Evaluation is not just for teachers—it is for school administrators and entire schools and school systems.
- Evaluation must not be divisive, but should, instead, foster cooperation among teachers.
- An evaluation plan should include multiple methods.
- An evaluation plan should not be the sole responsibility of one person but should involve parents, citizens and students.
- The primary focus of evaluation should be on the teacher's effect on students and classroom performance.
- Teachers must be involved in planning an evaluation system.
- Teachers must be given options, and some measure of control, within the evaluation system.

Principles for a System to Recognize Performance and Professional Development

Any plan for a professional growth and reward system should include these aims and principles:

- It should ensure that outstanding teachers work primarily in the classroom, not solely as administrators or "master teachers" without teaching responsibilities.
- It should encourage flexibility in class assignments and specialization in areas of expertise.
- It should encourage flexibility to break the "lock step" pattern of scheduling classes and assigning teacher responsibilities.
- It should encourage cooperation among teachers and the sharing of professional strengths among teachers within a school and/or a district.

Teacher Salaries

We believe that competitive salaries are critical for encouraging and retaining good people in the teaching profession. However, we do not believe that a salary increase, even a substantial one, is the only way to improve the quality of teaching and learning in Kentucky. Necessary salary increases must be combined with a way of recognizing superior performance and rewarding it.

For ten years Kentucky increased teacher salaries substantially, ranking high in the nation in salary increases. Kentucky began to slip backwards last year, when teacher salaries increased only 2 percent, below the inflation rate. Kentucky currently ranks 32nd in the nation in teachers' salaries.

Many teachers say that other factors in their jobs, those related to being "professionals," are equally important as, or more important than, salary. These include working conditions, class size, assistance and support from parents, administrative support, professional independence, and involvement in decision making.

In the past teacher salary increases have occurred when proponents of improved salaries for teachers confronted the limited resources available in the state's biennial budget. The result was often a distribution of salary increases based on financial reality—if revenues were large, the increases were larger; if revenues were smaller, or had to meet multiple needs, increases were low. While there is agreement that salaries need increasing, it is difficult to determine how much they should increase in a systematic way.

B. **We recommend that a process to determine a rational means for fair and proper increases for teachers be devised.**

One traditional yardstick for teacher salaries has been to seek to pay Kentucky's teachers the average salary for teachers paid by the seven surrounding states.

Annual Salaries of Classroom Teachers
Surrounding States
1981-82, 1982-83
Average Salary of All Teachers

	1981-82	1982-83	1983-84*	% Increase Over 1981-82	% Increase Over 1982-83
Illinois	$21,020	$22,618	$24,157	7.6%	6.8%
Indiana	18,622	20,067	21,836	7.8	8.8
Ohio	18,550	20,004	21,760	7.8	8.8
7-State Average	17,861	19,091	20,641	6.9	8.1
Virginia	17,008	18,707	20,488	10.0	9.5
Missouri	16,413	17,493	20,120	6.5	15.0
Kentucky	17,290	18,400	19,780	6.4	7.5
Tennessee	16,285	17,425	18,645	7.0	7.0
West Virginia	17,129	17,322	17,482	1.1	.9
Kentucky as a Percent of Average	96.8%	96.3%	95.8%		

Another way of setting salary levels in an occupational area is by comparison with similar occupations—those requiring similar education, licensing, continuing training, and production. But comparative data on occupations comparable to teaching in Kentucky have never been gathered.

Such research should be conducted, looking specifically at salaries of graduates in such fields as journalism, banking, marketing, general business, math, advertising, architecture, statistics, liberal arts, arts, political science, engineering, accounting, social work, nursing, and public administration.

Second, we need a measure of the relative ability of Kentucky to pay teachers. Several indicators of economic health are available—per capita income, mean family income, or "individual earnings by age and educational level"—all U.S. census categories. Using such data from the 1980 census and a ratio of teacher salaries to other salaries for several comparison states and for Kentucky would provide a meaningful basis for salary recommendations.

We expect that comparisons with other full-time occupations and with individual incomes will show several things. First, we expect that salaries for beginning teachers will compare favorably with other occupations. But we also expect that in the senior ranges, after five to ten years of service, salaries will not be as competitive with other occupations. (We know now that after about ten years or slightly less, a large portion of teachers leave the profession.)

C. **We recommend that exceptional salary increases (those increases beyond annual increments to meet inflation) be concentrated in the senior years and be based on fair evaluation of performance, with the goal of keeping talented people in teaching.** We expect that those teachers who earn exceptional salary increases will be the most dedicated and the most likely to welcome additional challenges and responsibilities, such as twelve-month employment, additional continuing education, curriculum planning, special teaching assignments, etc.

D. **We recommend that the Kentucky Office of Policy and Management establish a formula for determining teacher salary increases and a long-range plan for increasing length of employment.** The formula should relate salary increases to such factors as salaries in other occupations, teacher salaries in other states, and economic indicators. The formula should also include salary information on other public employees: city and state workers, firefighters, policemen, and federal employees.

E. **For salary increases in 1986-88, we recommend that all teachers be employed for ten months and that the Kentucky Office of Policy and Management prepare, within the formula defined above, a schedule of salary increments consistent with this expanded number of days of employment.** The State Board of Education will also need to prepare guidelines, suggestions, or regulations regarding the use of this additional time in school districts.

IV. Teacher Education

Widespread concern is being expressed about the quality of teacher education. Numerous studies have drawn public attention to the weaknesses of many college and university teacher education programs. A thorough review of these criticisms is not necessary in this report. The problem goes beyond colleges of education and includes all of higher education. Says President Theodore Hesburgh of Notre Dame, "The general lack of concern on the part of higher education for elementary and secondary education is at the heart of the nationwide educational crisis."[4]

The teacher-education community, through professional and accrediting organization, recognizes the problems. According to the recent report of the National Commission for Excellence in Teacher Education

the quality of teacher education programs has been widely criticized, as has their poor performance in setting and enforcing standards. For instance, in a recent poll of teachers, just over half rated their training programs "A" or "B" while the others rated their programs "C" or below.[5]

Fortunately, progress is being made. Colleges, universities, and schools around the nation are exploring new ways of working together, and colleges of education have begun to examine their own shortcomings—some reforms, underway for several years, have been positive. But much more is needed.

The Kentucky Council on Higher Education and the State Department of Education have announced plans for a thorough reexamination of teacher education in Kentucky. We encourage this review and cannot attempt to replicate it here. We expect that this review will be rigorous in its examination and that it will challenge existing practices.

While we do not offer a comprehensive plan, we recommend that those responsible for teacher education thoroughly reconsider many aspects of teacher education in Kentucky.

In view of the official study of teacher education already under way, we recommend the following proposals to the Council on Higher Education and the State Department of Education.

A. **The undergraduate program for teachers should be expanded to five years, to include both a bachelor's and a master's degree at the end of the fifth year of study.** This additional year should use on-campus and field-based instruction of an in-depth nature in the field to be taught or, for certain teachers, intellectually challenging immersion in the study of education. Expanding the length of teacher preparation has been recommended by numerous national organizations, by the Carnegie Foundation for the Advancement of Teaching, and by the presidents of the National Education Association and the American Federation of Teachers.[6]

Combining actual teaching and coursework in the fifth year will require that colleges of education offer more field work in student teaching situations and provide more individualized instruction.

Seminars in conjunction with actual teaching should be used, and the actual number of courses could be reduced in favor of depth of study. Adding a required fifth year would also require a review of the traditional undergraduate curriculum for teachers to eliminate superfluous courses, perhaps reducing the actual number of courses taken to add more academic challenge and rigor and to ensure subject matter competency.

Upon graduation, the new teacher would enter an internship period, discussed in detail hereafter, with the aim not of being evaluated, but of being "inducted" into good teaching. Upon completion of the internship, the new teacher would immediately be employed at the Rank II level.

B. Learning to teach does not just happen in the college program. It starts long before one gets to college and continues long after. Much of what one knows about teaching comes from the way one was taught, which may not have been exemplary and may perpetuate bad practices. Those responsible for teacher preparation programs in Kentucky need to capitalize on the most critical times when intensive learning can occur.

One of the most critical times for learning about teaching is in the first year of teaching itself. Until recently in Kentucky, the progress a new teacher made in his/her first year had been left to chance. Novice teachers were left alone and expected to perform all the duties of an experienced teacher. With no commitment of additional help from their college, university, or school district, these new teachers simply learned to cope on their own.

To be "inducted" into a good teaching career requires reduced teaching assignments for the first year; the opportunity for ongoing contact with talented and experienced teachers who can serve as mentors; systematic reflection and inquiry into one's teaching experience; and continued study of subject matter and pedagogy.

Recent legislation in Kentucky, although intended to do so, may not produce such an induction period. Some elements in the new plan support the first year teacher's efforts to learn—seventy hours of paid supervision by a master teacher, a team approach to assistance, the master teacher, a liaison from a teacher training institution, and three meetings to discuss issues.

But we believe there is a danger that in the new program evaluation will be stressed more than assistance. Emphasis may be placed on how well the new teacher works within a school, rather than on how much more training the new teacher needs. The oversight committee evaluates the new teacher's performance and recommends whether the teacher is to receive certification. These experienced educators may not help the new teacher acquire skills and knowledge, but may, instead, evaluate. The requirement that evaluation occur in the first year will decrease the ability of teacher mentors and other people to help the new teacher. Even worse, it could leave first-year

teachers afraid to ask for help for fear of receiving bad evaluations. **Although some evaluation may be needed, we recommend that program regulations stress learning to teach over evaluation.**

C. **Teacher training institutions should extend their teacher education programs to include the first years of actual teaching.** College faculty should assume major responsibility for the new teacher's development in these early years. These years should combine classroom teaching with seminars and other instructional time with college faculty. Such a change will enable students to receive the support they need during the critical first years, while satisfying the state's need to monitor the quality of graduates.

Enrollments in colleges of education have declined and may continue to decline. Consequently, some faculty can be reassigned, even if retraining is required. Some should be reassigned to work more individually with fifth-year and internship-year students, often away from the campus in the schools.

In general, colleges should concentrate faculty time more on working with teachers, both new ones and experienced ones, in the schools rather than on the campus. **This practice should result in ongoing and permanent relationships between colleges of education and their graduates, and in the recognition that colleges have a continuing responsibility for the quality of their graduates.**

Concurrently, college faculty members should spend more time in the schools actually teaching and working with elementary and secondary students. We recognize that faculty research and teaching will limit available time, but education professors need periodic classroom experiences themselves. College faculty should work in the schools, not just visit them. Faculty in other professional fields, such as law or medicine, actually practice their professions, and we see no reason why this pattern should not be followed in education. We recommend that "exchange programs," in which college faculty members teach in elementary and secondary schools and elementary and secondary teachers teach in college programs, be established.

College faculty should also be given more time to work with students in their practice teaching. University work arrangements and reward systems should encourage this involvement.

These steps, taken together, would combine to create an ongoing relationship between college educators and their students. College teachers would spend less time "teaching" in college classrooms

and more time "teaching" their students in schools. This continuing arrangement would also be a means for colleges of education to "guarantee" the quality of their graduates.

D. **Higher education institutions should find ways to allow college graduates from fields other than education to move quickly into graduate education programs by combining classroom experience with other education courses.** Certification of these teachers should be designed to ensure basic competency and require some training, but it should not inhibit flexibility in hiring.

E. So that college faculty and public school professionals may learn from each other and colleges may actively contribute to the improvement of education, **each college of education should develop close working relationships with an individual school or schools.** These cooperative arrangements should engage university faculty members in direct problem solving with teachers in the schools, and not simply operate as a way of presenting information on a haphazard basis.

F. **We recommend that the Council on Higher Education/Department of Education study of teacher education break from past practice and examine the quality of teacher education programs.** It should ask whether proper safeguards exist to protect the public and school children from poorly prepared teachers.

National studies show that, while the number of students enrolled in teacher education programs has declined, the number of colleges of education has actually increased. This increase in teachers' colleges has largely been in the "proliferation of smaller institutions offering teacher education programs."[7] Only four out of ten institutions preparing teachers across the nation are accredited by the National Council of Accreditation of Teacher Education. All Kentucky colleges do not have this accreditation.

The state review should investigate the proposal that, to receive state teaching certification, a student should graduate from an accredited teacher education program or a corresponding program combining work in a discipline with the practice of teaching. If not, by what other means is the public to be assured of the quality of teacher college graduates?

The state review should also recommend a productive relationship between the two agencies responsible for teacher education: the Council on Higher Education and the State Board of Education.

FOOTNOTES

Chapter I

1. Gary Sykes, "The Deal," **The Wilson Quarterly**, VIII, No. 1, 1984, p. 74.

2. Ernest L. Boyer, **High School: A Report on Secondary Education in America** (New York: Harper & Row, 1983), p. 155.

3. Kenneth E. Harrell, **The Public Papers of Governor Edward T. Breathitt, 1963-1967** (Lexington: University Press of Kentucky, 1984), p. 352.

4. quoted in Dennis Doyle, "Window of Opportunity," **The Wilson Quarterly**, VIII, No. 1, 1984, p. 94.

5. **A Call for Change in Teacher Education**, Washington, 1985, p. 10.

6. **Ibid.**, p. 15.

7. C. Emily Feistritzer, **The Making of a Teacher** (Washington, D.C.: National Center for Education Information, 1984), p. 30.

II
Reconsidering Goals and Curriculum

> In my view the chief aim of the schools is to help our children become a part of the larger community and to nourish them with those intellectual disciplines which should be a vital part of our lives. These all lead to what is perhaps the supreme value to be derived from education, which is a kind of intellectual independence, the ability to think for themselves and make choices for themselves—choices in their personal lives, choices in their family lives, and choices in the community and in society at large. My view is based on the faith that if people are equipped with these basic capacities they can crown their education by learning to think for themselves and speak for themselves.
>
> Edward F. Prichard, Jr.

The message to students and teachers in several of the leading national education reports of recent years has been to "work harder."[1] These reports have recommended increased classroom hours, more requirements for graduation, competency testing, and numerous other "accountability" measures. These recommendations are valuable when they convey the message that hard work is important and that there is more to education than attending school. But they are not enough. They fail to recognize fully the condition of schools and young people. We believe that in the long run it will be harmful if education reform stops here. "More rigor" by itself, according to Michael O'Keefe of the Carnegie Foundation, "is not enough."

What else is needed? Education must find new ways to help each individual learn to think clearly and critically; to analyze complex information; to communicate; to be creative and innovative; and to function fully as a family member, citizen, worker, and member of the larger community. Our changing economy and increasing technology make these traditional goals all the more imperative today.

Some discussions of the competitive position of the United States vis-a-vis other industrial nations, must notably Japan, have led to the conclusion that only improved technical know-how and expertise of-

fer economic salvation. We agree only in part. Workers with technical expertise will be, and need to be, trained in Kentucky and across the nation—American education will respond and Kentucky must keep pace. But more vital to Kentucky's and the nation's economic and social future are individuals who are creative, innovative, and entrepreneurial. These skills, not regimentation, have served the nation and the state well in the past and must be nurtured in the future. Narrow concentration and more rigor will stifle creativity and innovation. Our recommendations, therefore, go beyond rigor—and propose for schools a much more challenging task.

Likewise, widespread discussion of the "information economy" and the expanded availability of computers have led some to the conclusion that "computer education" is the answer to most of society's needs. It is certainly clear that some education in the use of computers and in "computer literacy" is needed. But, just as clearly, it is not enough. To function effectively in a technological society all individuals (and we emphasize all individuals) must have some ability to understand and deal with the impact and implications of technology upon their lives and upon their society. People must deal with technology as members of the human family—through decisions made in their everyday lives, decisions made as citizens, and decisions made in the workplace.

It is widely known that individuals change jobs several times in their working lives. Specific technical skills can help a person acquire the first job; new or different skills may be required for subsequent jobs. But these skills can be learned in many places, not just schools. The numbers of providers of continuing training have expanded rapidly in the last generation—businesses and corporations, libraries, universities, professional and trade associations, and corporations train millions of working American adults each year in new skills and techniques. In this vast world of educational offerings what makes schools unique is that they can have an impact on all people for at least twelve years of their lives. And what schools should uniquely provide, to all people, is the frame of mind and the mental tools to respond and to adapt to new circumstances (and new jobs) and to continue to learn throughout life.

Providing the tools for flexibility and adaptability is a greater challenge for an educational system than teaching technical skills. The challenge is made more difficult by the growing gap between those who are "technologically literate" and those who are not. In employment, for example, studies show a growing division between those who con-

trol and design technology (such as the engineers and scientists in high-tech industry) and a much larger mass of workers who "assemble" equipment or work in simple jobs in the "service sector." The latter group of workers is paid relatively low wages to, for example, process data or assemble computers. In their jobs they perform functions which do not require extensive education. The wage difference between the two groups, and the gap in levels of responsibility, may widen in the future. The implications of this gap, called the "declining middle" by one economist, are profound for the workplace and also for citizenship and voting patterns, family life, the distribution of income and power, and almost all areas of society.[2] A thorough education system, such as we suggest, will help narrow this gap.

I. School Goals

> We have, in the past, tended to dump on the schools every problem which seemed to need a solution, whether it be safe driving, drug or alcohol abuse, health, patriotism, or any other value the country felt a need to foster. The consequence is we have demanded so many things of our schools that it was hard for them to do anything, or everything, very well.
>
> Kentuckians need badly to decide what they want from their schools. We must decide, among the many things we have expected of the schools, which had better be dealt with elsewhere, and which have to be dealt with in the schools.
>
> Edward F. Prichard, Jr.

Our goals for Kentucky schools emphasize the skills, knowledge, and understanding that lead toward the creation of the total human being as a contributing member of society.

We emphasize literacy as the paramount goal for the schools. The ability to communicate is the basis for clear thinking and analysis; literacy is the basis for all other learning. If a population cannot comprehend the information it receives through popular forms of communication or cannot interpret that information and communicate its thoughts, then economic and political institutions will certainly decline. We conclude, therefore, that increased attention to the use of language is the critical ingredient for improved schooling.

Although our proposals about secondary and elementary school reform and a renewed emphasis on certain school goals, such as literacy,

will require some additional resources, they will be accomplished primarily by creative school leadership and a reevaluation of curricula. Educators must recognize, as a recent newspaper editorial stated, that "there's a difference between going to school and being educated."

John Goodlad, in **A Place Called School**, found that communities with good schools have strong agreement on school goals.[3] All recent analysts agree that society has come, over the last few decades, to expect schools to do too much. As former Commissioner of Education Ernest Boyer says, "we want it all." We must concentrate instead on what is most important.

Underlying our goals is the belief that the pursuit of "excellence" must also include the pursuit of "equality." We agree with Edward Prichard's observation that "part of the article of our democratic faith is that every individual has in him the potential for excellence which, if properly challenged and properly nurtured, can bring forth a flowering plant." The twin goals of equity and high quality in education are equally important.

Schools should assist all students in achieving their potential in each of these educational goals:

- the knowledge and skills to function in a competitive technological society within a democracy—as a citizen, worker, and family member; these include:

  the ability to read, speak, write, and listen
  - with proficiency in the English language and
  - familiarity with a foreign language

  the ability to analyze critically, to synthesize, and to organize complex information

  knowledge and understanding of mathematics

  knowledge of economic systems

  understanding of the physical world

  understanding of his/her heritage and place in the course of human civilizations

  understanding of foreign cultures

  knowledge and understanding necessary to choosing and functioning in the world of work.

- an understanding of self as well as relationships to other people, institutions, and nations, including:

  ability to maintain physical and mental health

  ability to use basic study skills, to learn independently, and to understand the importance of self-direction and learning throughout life

  appreciation and knowledge of the arts

  ability to recognize creativity as a basic human need.

Setting Goals

Before any serious educational reform can take place a critical first step is deciding what we expect of our schools—answering the question, "What are our schools for?" It is essential that those responsible—local citizens, parents, teachers, school administrators, school boards, elected officials, and students—join together to find a clear sense of purpose about what their schools should be doing.

Every school district should establish and publicize the local community's goals and expectations for its schools. Goals and expectations should be established through involvement and participation of the entire community.

Goals and expectations should be publicized by school administrators, who should keep the community informed of the goals, objectives, and successes of their schools. School principals should insure that school staff and the community are engaged in decision making and in reaching goals. Teachers should be prepared to teach their district's goals. Students should know what is expected of them and come prepared to learn. Parents should encourage and participate in their children's education and see that district goals are successful. Community members and those without school children should lend their support, encouragement, and expertise to help the schools accomplish their goals. Local elected officials and legislators should participate fully in setting community goals and should encourage cooperation and conversation across the entire community and with state officials.

II. Curriculum

Our recommendations for curricular reform concentrate on the high school. We believe that education at this level is in the greatest need

of improvement. Most educators agree that much improvement at the elementary level has been made in recent years, and they are hopeful that it will continue. In addition, many recommendations in this report encourage improvements at all levels, and these will have a substantial impact on elementary, middle schools, and junior high schools. And while we concentrate on high school education, reforms in high schools should, once implemented, have a substantial effect on middle schools, and junior high and elementary schools.

We believe the central need at elementary and junior high levels is for a firm grounding in reading and writing skills as preparation for higher levels of education in later years. This core purpose will require that each child be given individual attention by teachers.

Recommendations

A. The primary academic goal for the schools should be to help each student master basic communication skills—to be able to read and write effectively. To learn to write one must practice writing; teachers must assign writing projects and work individually with students. Because this takes time, additional manpower is necessary. **We therefore heartily endorse the recommendation of the Governor's Council on Educational Reform to enhance communication skills including funding enough language arts and English classes so that no teacher will teach more than 100 students and emphasizing writing in all subject areas.** If giving more attention to literacy means time spent in other academic areas should be reduced, then the State Department of Education should determine which curricular areas should be deemphasized.

B. Town forum participants stressed the need for school children to receive more individual attention and for smaller class size. Our recommended high school reform plan will also result in a lower teacher-student ratio. With a reduced class size, teachers should be expected to increase individualized assignments and to rely less on standardized instruction and testing.

We therefore recommend that Kentucky set as a goal the gradual reduction in class size to a number which will provide the most individual attention for each child. The Governor's Council on Educational Reform has recommended limiting maximum class size in "middle and secondary school classes in a manner similar to that done

for elementary classes" (which was to limit "class sizes in K-6 to four more than the number used on the average daily attendance figure in defining the biennial appropriation").

Young people (and adults) learn in different ways; they have different "learning styles" from one another. To have truly effective education, these learning styles must be identified and instruction must be varied so that each child can learn. This requires diagnosis and changing some teaching methods. We have recommended elsewhere in this report (Chapter IV) that this diagnosis be undertaken in the child's early years. We believe that ultimately all instruction should be molded to differences in individual learning styles.

III. Reforming High School Learning

The main challenge for the high school is to make education responsive to the actual condition of adolescents. That condition includes passivity, lack of intellectual aggressiveness, lack of respect for their own abilities, and emotional or intellectual withdrawal from serious interest in school. The challenge is to provide motivation, not more requirements. We suggest a thorough rearrangement of the high school to meet this challenge.

The Problem

Research by the Institute for Research on Teaching at Michigan State University has concluded that current reforms fail to take into account "two of the most fundamental elements in the education process: the prominent role of social relationships between educators and students and the extent to which students are disengaged from the learning process."

This "disengagement" by students from high schools most often takes the form of a "bargain" between educators and students. In its extreme, this bargain says, "If you don't bother me, I won't bother you."

According to the authors of this recent report, the features of this bargain include:

> relatively little concern for academic content; a willingness to tolerate, if not encourage, diversion from the knowledge to be presented or dis-

> cussed; the substitution of genial banter and conversation for concentrated academic exercises; improvisational instruction adapted to student indifference toward content; the "negotiation" of subject matter, assignments and standards; and a high degree of teacher autonomy for managing the level of engagement, personal interaction, and course content. This bargain results in both teacher and student disengagement, which in turn inevitably results in lowered academic achievement. The bargain, which is ordinarily implicitly struck, makes the relationship between educators and their students more comfortable and less troublesome, and furthers social and management goals but at the expense of knowledge acquisition. The bargain for smooth social relations, with its concomitant impact on the instructional relationship, is negotiated in every classroom, affecting the time and attention educators and students can devote to academic learning.[4]

Although young people are often active and aggressive in their social lives, in their jobs, and in other outside activities, they are not aggressive in their school work. Students are too often passive and docile.

> No more important finding has emerged from the inquiries of our study than that the American high school student, as student, is all too often docile, compliant, and without initiative. Some who have initiative use it to undertake as little engagement as possible with school. Their harshest epithet for teacher is "boring." Nonetheless, paradoxically, students do accept the boring classes as a price the school sets. There are too few rewards for being inquisitive; there rarely is extra credit for the ingenious proof. The constructive skeptic can be unsettling to all too many teachers who may find him cheeky and disruptive.[5]

Ironically, the same research finds that in their lives outside school students are not passive at all. The majority of high school age young people are now working or searching for work during the academic year. One report showed that

> nearly 3/5 of the sophomores interviewed and over 3/4 of the seniors interviewed had either worked for pay or were looking for a job. And young people are not docile in their jobs. They are excited about them, aggressive about obtaining them, and look forward to them. Why do we have this distinction between life outside of school and life in school? The answer may be obvious.[6]

The answer rests in the way students respond to what is offered to them in school. As one former teacher said, "The schools are anesthetizing the students." Observers have noticed the blandness of activities,

such as debate clubs and student newspapers. "Even good schools are quiet, apparently happy and orderly, but intellectually dull. They are not provoking or stimulating places." An athletic coach quoted by Theodore Sizer maintained that schools allow students to "practice stupidity as long as they don't become discipline problems." Another says "education has become a massive process of producing passive minds."[7]

As Sizer says in **Horace's Compromise**:

> High schools will be effective to the extent that they design their policies and practices around the two powerful stimuli of receiving the high school diploma and helping young people respect themselves and be respected.
>
> . . . students see the diploma as their high school goal, the passport to the next stage of life. The way to receive it, they now know, is to serve time, to be in attendance the requisite number of weeks in the requisite courses. One thereby amasses 'credits' which ultimately 'earn' the diploma. **Attendance** is the way it is done.[8]

Schools have not provided positive incentives for performance, either the minimal performance of staying in school until the diploma is earned or performing extremely well. While national reports tell students that they should "do more," take more courses and do better, they often fail to recognize that in fact young adults actually have control over their own lives and can turn off teachers or content.

> If we want our well-intentioned plans to succeed, we'll have to inspire the adolescents to join in them, even the sullen, uninterested students. The vision of schools as an uncomplicated place where the teachers pass along the torch of knowledge to eager students is sadly innocent.[9]

According to Harold Howe, former U.S. Commissioner of Education, " . . . a major component missing from most commission type reports in the last year is any recognition of the importance of motivation."[10] Failure to **inspire** and **to motivate** comes from overlooking the potential power and enthusiasm young people have within them. We assume they will be truant, late, irresponsible; and "that prophecy is self-fulfilling. We assume they cannot figure things out for themselves so we tell them things. Paradoxically, we are conspirators, often with them, in their dependence. Happy dependence is

a pleasant state for many adolescents. If little is asked of them, their failure is likewise small."[11]

This doubting view of young people underpins the way schools have organized knowledge and attempt to teach it. Society begins with the goal of teaching students concepts, skills, understanding, and a sense of themselves. In school, though, we teach "subjects." In our effort to teach concepts and understanding, we instead teach subjects.

> Taking 'subjects' in a systematized, conveyor belt way is what one does in high school. That this process is, in substantial respects, not related to the rhetorical purposes of education is tolerated by most people, perhaps because they do not either really believe in those ill-defined goals or, in their heart of hearts, believe that schools can or should not even try to achieve them. The parents are happy, because that is what they did in high school. The rituals, the most important of which is graduation, remain intact. The adolescents are supervised, safely and constructively most of the time, during the morning and afternoon hours, and they are off the labor market. That is what high school is all about.[12]

As a final compounding condition the emphasis in these "subject" courses is on teaching "facts." The stifling effect of teaching facts alone is compounded by what we now call the "information explosion." As futurist John Naisbett says, "We are drowning in information but starved for knowledge." More is packed into textbooks, into courses, into standardized tests—students will study more and more information but learn less and less.

> Introductory Biology classes teach the names of all the central branches of the plant and animal kingdoms. Chemistry labors through the elements. English covers the plots of stories and plays of major writers. Mathematics covers the basic procedures of the generally accepted core of subject; arithmetic, algebra, geometry. History goes from the pharaohs to the latest election. The awesome bulk of a typical World History textbook is deadening. Would anyone not in school pick up and read such a weighty tome? (Not students' parents, a point poignantly noticed.) Who can retain all these facts, usually assembled by a committee of authors, which is evidence enough of the vast scale the volume represents? The exercise of memory and understanding implied by such a book chills the hardiest of budding scholars.[13]

The problems inherent in this approach have been known for generations. One was identified by the philosopher John Dewey:

> When education, under the influence of scholastic conception of knowledge which ignores everything but scientifically formulated facts and truths . . . the subject matter of instruction is isolated from the needs and purposes of the learner and so becomes just something to be memorized and be reproduced upon demand . . . Only in education, never in the life of farmer, sailor, merchant, physician or laboratory experimenter, does knowledge mean primarily a store of information aloof from doing . . . Knowledge which is mainly secondhand, other man's knowledge, tends to become merely verbal.[14]

Or as Alfred North Whitehead said:

> In the history of education, the most striking phenomenon is that schools of learning which at one epoch are alive with a ferment of genius at a succeeding generation exhibit merely pedantry and routine. The reason is that they are laden with inert ideas. Education with inert ideas is not only useless; it is, above all, harmful.

Education instead, according to Whitehead, "is the acquisition of the art of the utilization of knowledge." He suggests that we have to ask "How in our system of education we are to guard against . . . mental dryrot? We enunciate two educational commandments: '**Do not teach too many subjects,**' and '**What you teach, teach thoroughly.**' "[15]

It is time for bold challenges to our educational traditions and to the way schools are organized. According to the Michigan State report cited above, "these activities are not just surface events; they are bound up with the way we organize, finance and run secondary schools." We agree with Harold Howe when he says that:

> . . . more of the same solutions to our education problems will not help us obtain the excellence to which we aspire. We require boldness in making changes and, in particular, the boldness to challenge the patterns and structures and practices that are so familiar in our schools and that stand in the way of success. This is particularly true for students who bring to school the problems produced by their inability to live up to our ideals.[16]

In our recommendations we propose that mastering a limited number of intellectual skills and understandings will accomplish what we need in the schools.

Recommendations:

A. **We recommend that the organization of secondary schools, the content of course material, the selection of texts and reading, and the methods of teaching be thoroughly reorganized. This reorganization should take advantage of two forces which drive teen-age behavior: the desire to receive the high school diploma and the need for self respect and to be respected.**

To accomplish this goal, we recommend:

1) Reorganization of the high school curriculum and schedule so that the diploma is awarded when the student demonstrates that he or she has mastered the desired competencies, not when he or she has attended school for a specified number of years and gathered the appropriate number of Carnegie units. The emphasis must be on learning, not putting in time.

2) Identification of the competencies expected of all Kentucky high school graduates. These competencies should concentrate on individual and societal needs for broad understanding, analysis of complexity, working cooperatively, creativity, taking risks, and the basic skills of communication in all forms.

3) Provide varied approaches to teaching so that students can truly master required competencies through a variety of learning methods. In addition to traditional classroom arrangements, these methods might include independent work with a teacher or tutor, independent papers and reports, artistic or creative efforts, field work, practica, and internships. Students and teachers should be allowed a choice of means and schedules to reach required ends, with intensive teacher supervision, instruction, coaching, and guidance. Since existing teaching materials and textbooks are inadequate for this approach, teachers and school staff should be encouraged to prepare more suitable materials.

4) Provide a variety of ways for the school, its staff and teachers, to measure the mastery of these competencies and ensure that they have been completed. In addition to timed, standardized tests, these measures could include essays, portfolios, observation of student performance or presentations, and many others.

5) Provide ways for students to take more responsibility within the school setting. Enhance the importance of cocurricular activities, such as theatre, debate, newspapers, and increase involvement in school decision making, security, discipline, etc.

6) Implement youth community service requirements contained in the recommendations in Chapter IV.

B. **Implementation**

This is not a modest recommendation. It will take a major investment of time and talent by teachers and school and state administrators. However, the alternative costs of lost generations of young people are even more expensive.

The following steps provide for the full implementation of these recommendations for the high school class beginning their 10th grade year in 1987, or the graduates of 1990. While the ultimate goal is to reorganize all high schools, the program should begin with "pilot projects" in approximately fifteen Kentucky high schools, selected through a process outlined below.

The steps in the implementation process might include the following: Appropriate state authorities should review the following issues.

1) Design a competitive process to select a predetermined number (perhaps ten to fifteen) of high schools to implement the reform program on a pilot project basis. These selected schools should be given the flexibility to diverge from state regulations to implement the experiment and should be allowed the financial flexibility, or provided the financial resources, to implement the program. Participating schools should be required to include teachers in the planning process and to retrain teachers as appropriate to implement the program, and to involve the community. Schools should also be required to demonstrate their competence to implement reform and to attain the commitment of the school board, the staff, the teachers, and the community.

2) Determine the competencies which are expected of Kentucky high school graduates. Our committee suggests, for consideration by the appropriate officials, the intellectual skills, areas of knowledge, and understanding of ideas and values contained in the committee's statement on school goals.

3) Prepare acceptable alternatives to existing school regulations, including, but not limited to: a) mandatory daily attendance, b) required days of attendance during the school year, c) existing summer school schedule and regulations, d) required completion of 20 Carnegie units, e) required class loads and class size, f) applicable truancy regulations.

4) Establish training and retraining centers for teachers, emphasizing the skills necessary for teaching through alternative approaches such as independent study, team projects, tutorials, interdisciplinary approaches, etc.

5) Evaluate existing tests of student competency (example, CTBS) and devise additional or alternative methods of measuring student achievement.

6) Identify means by which students who fall behind or fail to achieve the most fundamental competencies can be assured the opportunity to succeed.

7) Negotiate arrangements with colleges and universities for: a) admission of students, b) early admission of students, c) increased teaching of courses for college credit in high schools, d) increased use of college-level teachers as advisors in high schools.

8) Prepare a list of acceptable alternative activities (which might be facilitated by the schools but not necessarily conducted by the schools) for students who complete school prior to the standard year of graduation.

9) Prepare a plan for the relationship between "youth service" and the academic programs described above.

Additional Recommendations

C. **Extracurricular Activities & Athletics**

In a good school extracurricular activities contribute to the personal and intellectual growth of students and to the school's atmosphere. They supplement the core academic purposes of the

school. High school athletics can contribute to the total environment of the school, to students' personal growth and development, and to the community. But extracurricular activities and athletic competition should never become dominant school activities; in some schools they have. Athletics should not detract from the central purpose of the school.

We recommend that the State Board of Education continue its efforts to protect the time students spend in educational and cocurricular activities and to reduce extraneous interference in the school day. The State Board should also go further in the area of scheduling athletic events. It should set the goal of scheduling all athletic events so that they do not detract from the school day and do not require leaving school early. Scheduling events on school nights should be avoided and scheduling on weekends, encouraged.

We also recommend that the State Board of Education adopt the high school course requirements and grade point requirements adopted for college eligibility by the National Collegiate Athletic Association. To be eligible for high school athletics a student would therefore have to achieve a 2.0 grade average in eleven specific courses: 3 English, 2 math, 2 social science, 2 natural sciences, 2 electives (as well as an overall grade point average of 2.0).

D. School Flexibility & Incentives

The best schools will be those where administrators and teachers can apply their talents most creatively to helping students learn and grow. Schools need flexibility and room to maneuver.

Education reform movements in recent years have encouraged, for good reason, an expansion of state authority over local schools. But this state authority must not stifle creativity and innovation, and discourage good education.

Aggressive state-level intervention is needed to meet the needs of the Commonwealth. But over time the aim of state authorities should be to encourage local creativity and initiative. State actions should therefore be considered in the light of their impact on local initiative and flexibility. **State authorities should set as their goal providing incentives for good performance within state-established goals and performance expectations.**

E. Adult Illiteracy

It is estimated that one of every five adults in this country is functionally illiterate; that would mean approximately 400,000 Ken-

tuckians. If the extremely low Kentucky high school graduation rate of past generations is considered, this estimate is conservative.

Besides a tragic human impact, this severe illiteracy problem is a considerable barrier to economic development in Kentucky. With a staggering rate of 80 percent functional illiteracy among the unemployed, this problem costs the nation over $8 billion in lost tax revenue, plus $5 billion in welfare support. Adult illiteracy makes training for new jobs or reemployment nearly impossible. Those illiterate adults who have jobs earn less than $4,000 per year.

A study by the Kentucky Economic Development Corporation says "it is imperative that Kentucky's educational system provide persons with backgrounds in the basic skills of reading, writing, mathematics, use of computers and good work and study habits. It is more important for a person to be adaptable to a variety of occupations than it is to be trained for a specific one." The ability to read is central to all this training, yet there is no state funding for literacy development in Kentucky.

The Department of Libraries and Archives and the Department of Education are coordinating a major literacy initiative in Kentucky, but their efforts are severely hampered by lack of state support. Federal funds from the U.S. Department of Education and the Job Training Partnership Act restrict state education efforts through federal regulations, and libraries are hampered by general lack of funding. Without state support and funding, it will be nearly impossible to turn the tide on illiteracy. At best, we are reaching about 2,000 people annually with current efforts—a long way from the conservative estimate of 400,000 functionally illiterate Kentuckians.

We recommend that the State of Kentucky launch a major campaign to increase adult literacy. A gubernatorial commission has recently been established to help coordinate state-wide literacy efforts. Funding should be appropriated through the Department for Libraries and Archives and the Department of Education to conduct literacy programs.

Local school officials and boards of education must recognize the problem and commit themselves to correcting it. Kentucky cannot give up on one generation and still save the next, nor can we lose young people who cannot function in school because of an inability to read.

F. Gifted and Talented Students

The 1981 report of the original Prichard Committee stressed the need for Kentucky to pay special attention to its most talented young people. One specific recommendation was the Fund for Academic Excellence. The fund was to consist of college scholarship programs for talented students, endowed professorships at public universities, and new methods of helping faculty improve as teachers.

The Fund for Academic Excellence was submitted to, but not approved by, the 1982 General Assembly. In 1984 a similar scholarship fund also failed to receive legislative endorsement.

While this centerpiece program was not implemented, other important steps have been taken in the last three years. The most visible of these has been the Governor's Scholars Program, which was encouraged by the Prichard Committee. This program is supported jointly by gifts from the private sector and state government and serves several hundred high school juniors on college campuses each summer. In addition, many public and private colleges and universities have increased their scholarship support for talented students. High schools are also reexamining their programs for gifted students. Great progress has been made.

However, more is needed. The future demands that Kentucky's talented young people be prepared to make a full contribution to Kentucky through the development of their highest skills. To do this they must be provided with quality education programs and with incentives to achieve. They must be given the hope that remaining in Kentucky to pursue higher education and careers is desirable. And because of the image of Kentucky's educational system, it is also important that the state demonstrate clearly to a national audience that Kentucky is nurturing its talented students.

We recommend that the Fund for Academic Excellence, including a scholarship program for gifted and talented students, be implemented. The inclination to help gifted students and provide them with challenging programs is now present—school systems simply need encouragement to secure these programs. **A special fund should be established, administered by the Kentucky Department of Education, to provide incentives to a limited number of school districts to create special schools, or programs within schools, offering special programs for gifted and talented students.** These might include special facilities, "magnet schools" focusing on particular academic areas (such as the humanities, the arts, the sciences and math, etc.), honors

programs within high schools, special summer sessions in cooperation with colleges and universities, etc.

This fund should also reinforce our recommendation for reforming high schools, which will provide greater flexibility and individual attention for all high school students. Teachers must also be trained in ways of helping students move at their own pace. In addition, school administrators need encouragement and regulatory permission to allow advanced students to undertake special learning projects such as attending college courses, independent study, or tutorial work.

Finally, the fund should be used to encourage the expanded use of Kentucky Educational Television to carry enriching programs to schools and to link students across the state together through electronic communication.

FOOTNOTES

Chapter II

1. Notable exceptions are the Carnegie Foundation's **High School** and Theodore Sizer's **Horace's Compromise**.
2. Robert Kuttner, "The Declining Middle." **The Atlantic Monthly**, July, 1983.
3. John Goodlad, **A Place Called School** (New York: McGraw-Hill, 1984), p. 51, & Boyer, p. 57.
4. Michael Sedlak, Christopher Wheeler, Diana Pullin & Philip Cusick, **High School Reform & The "Bargain" to Learn.** Institute for Research on Teaching, Michigan State University, 1984, p. 2.
5. Sizer, p. 54.
6. Sizer, p. 55
7. Sizer, p. 56
8. Sizer, p. 60
9. Sizer, p. 62
10. Harold Howe II, **Harvard Education Review**, 54, No. 1, February, 1984.
11. Sizer, p. 65

12. Sizer, p. 83

13. Sizer, p. 94

14. John Dewey, "The Nature of Subject Matter" (1916) in Reginald D. Archambault, **ed John Dewey on Education: Selected Writings** (New York: Random House, 1964), pp. 363-64.

15. Alfred North Whitehead, **The Aims of Education** (New York: Macmillan, 1929), pp. 2, 6.

16. Howe, p. 25.

III
Leadership and Governance

The principal is the heart of the instructional leadership of the school.

Edward F. Prichard, Jr.

Teaching and teachers have received an extraordinary amount of attention in educational reform discussions. There is no question that effective teaching is the key to effective schools, but as one school superintendent told us, "effective teaching depends upon effective administration." It will do little good, he said, to recruit better teachers, educate them better and pay them more, if the school principal does not provide thoughtful leadership. As a former superintendent of public instruction said, "the number one issue for Kentucky schools is school and school district leadership."

School administrators are under fire, but they are not alone. American corporate and business leadership has also been under extraordinary pressure in recent years. Indeed, most American institutions—businesses, government, universities and colleges—have insisted that their leaders accept new challenges as the nation talks about achieving "excellence."

The lessons of this national discussion are not usually applied to school leadership, but they should be. Exemplified by popular literature such as **In Search of Excellence**, the focus on "excellence" concentrates on the leaders' pivotal responsibility for excellence. It says that to be "good," leadership must provide clear institutional direction, motivate employees, and create a flexible institutional climate in which creativity and innovation can flourish.

We see no reason why school leadership cannot profit from the same standards of excellence. We agree with Rosabeth Moss Kanter who in her book **The Change Masters** says,

> The organizations now emerging as successful will be, above all, flexible; they will need to be able to bring particular resources together quickly, on the basis of short-term recognition of new requirements. Most im-

> portant, organizations need innovation to shift from the present tendency to deal with their tasks in a relatively single-minded, top directed way and to a capacity to respond innovatively, locally, and promptly to a whole variety of organizational contingences—to change shape, so to speak.[1]

Should successful schools have similar qualities? Of course they should.

The tone for learning is set and influenced by leadership and governance at many levels: the State Board of Education, the State Department of Education, and the local boards of education; superintendents of schools, principals, assistant principals, and other individuals in positions of leadership. Our recommendations are aimed at all levels.

We are concerned about one trend which should be watched carefully over the next few years. Two potentially contradictory currents are now shaping school policy. On one hand reformers agree that the key to long-term educational change is in the active and informed engagement of local people with their local schools. The quality of local schools reflects the value local people place on education: a concerned and involved community can have good schools; an apathetic community, where education is not valued, will not.

On the other hand, authority at the state level is increasing dramatically. In Kentucky and across the nation push for reform is coming from governors, state legislators, and state superintendents. As the public demands "accountability" and as state leadership responds, the authority of the state increases. This leadership at the state level is essential, but where does it lead? Will it ultimately weaken or strengthen the interest of local people in the quality of their own local schools?

Looking ahead, after several years have passed and many state reforms are in effect, local interest and local capacity for leadership could indeed be weakened. Some contend, as did a recent report by the American Educational Studies Association, that this increased centralization is "opposed to what the research says about how you get successful schools—namely, through a great deal of local flexibility and innovation." The report argues that a major obstacle to achieving excellence is "the assumption that educational improvement rests in increasingly detailed and precise specification of school practice related to curriculum, time allotments, standards, professional specialization, and roles and responsibilities."[2]

We believe that the state has a clear responsibility to establish expectations and goals. It also has a clear responsibility to protect the public, to ensure quality and to initiate reforms which cannot, or will not, be completed at the local level. But we also believe that state

reforms should be judged by their ultimate effects on local students and schools and school districts. Likewise, all state-level reform should, as its ultimate goal, encourage responsibility and accountability at the district and school levels. To accomplish this, state policies must help local taxpayers, parents, and students make sound judgments about their schools; must encourage local interest in good schools; and must give local school leadership the flexibility to seek state-defined goals through creative and innovative means. The following recommendations serve this goal.

I. **We recommend that a constitutional amendment providing for an appointed, not elected, state superintendent be placed on the ballot and that a plan of action to see that the people may express their will on this matter be prepared.**

The Kentucky Constitution provides that the superintendent of public instruction be elected at the same time as the governor and other constitutional officers and that he or she not be permitted to serve more than one term in succession. This provision should be changed so that continuity of leadership can be provided, so that constant political campaigns by education officials can be eliminated, and so that the State Board of Education can employ a superintendent of high professional quality.

No delegate in either the third or fourth constitutional conventions (1849 and 1890-91) could possibly have foreseen Kentucky's ever-increasing educational responsibility. In neither convention was there discussion of the qualification of the superintendent. In sections 91, 93, and 96 of the present constitution this office was lumped in with those of lieutenant governor, attorney general, auditor, treasurer.

None of the eight constitutional officials was entrusted with the planning, execution, and operation of such vital human affairs as the superintendent of public instruction. Section 91 provided only that this officer be thirty years of age and two years a resident of the state at the time of election. No mention was made of qualifications, even such elementary ones as being able to read and write. The constitutional provision assumed a prospective superintendent of public instruction had first to be a politician to get elected, and no doubt a member of a political party's slate.

In 1950 the Constitutional Review Commission examined sections 91, 93, and 95, and recommended that the superintendent of public instruction be appointed by a state board of education. The Commission advocated removing the office of superintendent from partisan

politics and selecting this officer on the basis of professional qualifications. It said that under the present provisions of old section 91 the superintendent at the end of two years had to begin a campaign to be elected to another office if he or she wished to remain in state government. Of more vital importance was the fact that any plan an incumbent superintendent projected had to be matured in four years or else abandoned. The commission proposed that the superintendent of public instruction be chosen with the same care and given the same tenure as the presidents of what were then teachers' colleges.

The arguments of the Constitutional Review Commission in 1950 still prevail in 1985. The advantages of appointing the superintendent are prescribed professional qualifications, the making of long-range plans, continuity of programs, and the hiring and retention of a professionally qualified staff.

The sticking point has been devising the mode of appointing the superintendent. But it can be done. Boards of trustees of Kentucky's universities have elected presidents with an awareness of the public good. We hope that there prevails in the Commonwealth sufficient good faith, dedication, and intelligence to create a selective process that will assure effective administration of the Commonwealth's educational system. Thirty-three other states have been able to do this with success: none of them has lost public control of its schools.

We are tied to the provisions of a constitution written in 1891 as we prepare our educational system to face the 21st century. It is time to amend the constitution to provide for an appointed, not an elected, superintendent of public instruction.

II. **We recommend a three-phase certification process for all school administrators, including superintendents, directors of pupil personnel, supervisors, principals and assistant principals, which would include: a) completion of required college coursework (before employment); b) successful completion of a new Kentucky school administrator examination (similar to the Kentucky Bar Examination); and, c) successful completion of a one-year internship for evaluation.**

The school administrator examination is intended to ensure uniformity of knowledge on the part of prospective school administrators. It will also help to ensure that individuals completing their formal training in another state and seeking employment in Kentucky are familiar with school laws and policies relating specifically to Kentucky. This exam would be broad in content with added components for specific administrative staff (e.g., directors of pupil personnel). For in-state per-

sonnel applying for certification and out-of-state personnel without school administrative experience the test would be taken prior to employment. For out-of-state applicants with administrative experience the test can be taken any time during the first year of employment. The internship and evaluation for administrative personnel will be comparable to the internship program now being established for teachers.

III. We have considered in detail the problems resulting from inappropriate political behavior, favoritism, and nepotism in local school districts. We have talked with school administrators, teachers, and parents about measures which would prohibit or restrict such political activity. We have examined the qualities asked by our chairman as he began our work: "Does the political complexity and political motivation of many school administrators and school boards in some parts of Kentucky turn the school system away from an academic performance unit and into a unit of political patronage?" We agree with his conclusion, that "we have to deal with the politicization of parts of our school system."

Inappropriate political activity and nepotism are the symptoms of a disease rather than the disease itself. The actual disease is the failure, by those responsible for the schools, to produce effective schools for children. Cronyism, political favoritism, and empire building are a serious obstacle to effective schools.

In our democracy the cures for ineffective leadership are clear demonstrations of public expectations or displeasure from concerned citizens and public evaluation of school performance. To voice their expectations citizens must be knowledgeable and organized. Local groups of concerned people, allied with professional educators, are needed in every school district. Likewise, careful evaluation of school effectiveness is needed to break down entrenched patterns of behavior. (Our suggestions for community and state evaluation of schools are outlined in detail in another chapter of this report, Indicators of Effective Schools.)

In addition to this evaluation plan, we recommend dissemination by the State Department of Education, with the collaboration of appropriate professional organizations and individuals, a model evaluation procedure for Kentucky school administrators. This model evaluation plan would be used by local school districts in the design of their own administrator evaluation procedures.

Evaluation procedures for all school personnel will be implemented by October of 1985 for all Kentucky school districts. In helping local

school districts develop sound administrator evaluation systems, a model evaluation procedure would provide guidelines which could be adopted and modified as needed by districts. Recognizing differences in administrative responsibilities for superintendents as contrasted with building principals and others, model evaluation procedures should be developed for each of these positions separately.

This committee and other concerned citizens should continue to monitor the effects of the local political climate and present additional recommendations in the future.

IV. **We recommend that special attention be devoted to the evaluation of school principals, similar to the current attention on teacher evaluation.**

Model standards should recognize the following priority areas:

- Academic leadership: student achievement and accomplishments should be a major component of any evaluation.
- The principal must be able to identify and articulate goals and priorities.
- The principal must show that time has been spent in classrooms observing and assisting teachers.
- The principal must thoroughly understand the school's educational program.
- The principal must show he/she can work cooperatively with teachers, students, parents, and the community.
- The principal must set high expectations for teachers, students, and the community.
- The principal must evaluate teachers effectively and fairly.
- The principal must engage in his/her own continuing education.
- The principal must show evidence of having provided continuing training for teachers.

V. **We recommend the establishment, by state regulation, of a requirement for future certification of elementary and junior high school principals (or middle schools) that the applicants have a number of years of teaching experience at the corresponding level.**

VI. **We recommend the establishment of a continuing education requirement for all Kentucky administrative personnel, to consist of a planned sequence of forty-two contact hours of continuing education**

to be completed every two years to retain certification as a Kentucky school administrator. Senate Bill 364, which passed during the 1984 General Assembly, mandated forty-two hours of continued training for all administrative personnel except superintendents. As an expansion of the original bill it would be desirable to broaden the statute to include all superintendents. The statute must also provide for the recertification of administrative personnel every two years based on successful completion of the continuing education requirement.

VII. **We recommend that an orientation program be made available to all individuals running for office as members of local boards of education.** The program would provide each prospective school board member with information needed to meet the challenges and demands of serving as a local school board member.

Persons interested in serving on local boards of education need as much familiarity with educational policy issues as possible. Orientation for individuals interested in running for local school boards would increase the level of discussion regarding educational issues and improve the level of expertise in the position. The orientation should be coordinated by an established professional organization, such as the Kentucky School Boards Association, in cooperation with other groups with educational expertise.

VIII. **We recommend that superintendents and local school boards take primary responsibility for establishing long-range and comprehensive school effectiveness plans.** Plans should be initiated by administrators and completed with the involvement of teachers, parents, and interested citizens. (For more detail see another chapter of this report, Indicators of Effective Schools.)

FOOTNOTES

Chapter III

1. Rosabeth Moss Kanter, **The Change Masters** (New York: Simon & Shuster, 1983), p. 41.

2. "Pride & Promise: Schools of Excellence for All the People," American Educational Studies Association, Quoted in **Education Week**, October 24, 1984.

IV
A New Commitment to Children & Youth

> It is my firm commitment that the difference in inherent capacity is much less than the differences in academic performance. And I think that is a vital fact to which we ought to attend. This is particularly true of those whose failure to perform is traceable to socio-economic handicap. This leads us to the belief that the earlier we get at the problem the quicker we can narrow the gap between the so-called nonperformers and the "brightest and the best."
>
> Edward F. Prichard, Jr.

Every other issue under discussion by the Prichard Committee grows from the way Kentucky and Kentuckians care for infants and children. Problems in Kentucky's economy, political system, and families may be traced to the condition of Kentucky's children from their earliest years.

In a state like Kentucky the quality of education will improve only as the condition of the population improves. And since this condition grows out of the childhood years, we must openly acknowledge that substantial improvement may occur early, and that it will show results only over many years, perhaps even a generation.

National reports claim that "the nation is at risk," but these reports have not always, in our view, concentrated on the most relevant reasons for this risk. The problems inherent in the condition of infants, children and youth are not limited to the schools or to issues in education. While our schools must be improved, we must also make dramatic steps to better the condition of our children, especially those whose families or whose economic circumstances provide them with little care and support.

The condition of American children, especially those at the lower end of the socio-economic scale, is becoming worse. As a new report on children reports, "If the nation is having a poverty boom, the

children are getting the brunt of it."[1] Certain figures speak for themselves:

	1973	1983
Of all children, below poverty	14.2%	21.3%
Black children below poverty	40.6%	46.3%
Hispanic children below poverty	27.8%	37.8%
White children below poverty	9.7%	16.9%

20% of all children (under 18) live below the poverty level.

23.3% of children under 6 live below the poverty level.

25% of all births to teenage mothers.

20% of all children live with mother, no father present (compared to 10% in 1970).

56% of children in female households are below poverty level.

67% of children under 6 in female households are below the poverty level.

20% of women heading one-parent households were never married.

33% of women heading households with children never completed high school.

53% of two-parent families, both parents work.

60% of female heads of household work.

65% of female heads of household with children work.

55% of female heads of household with children under 6 work.

What is the condition in Kentucky?

- 22% of Kentucky's children live in families with incomes below the poverty level.
- 30,455 children were reported to be abused or neglected in 1983.
- 61,000 Kentucky children were identified as emotionally disturbed.

- 6,970 children were incarcerated in Kentucky's jails and detention centers in 1983.
- 1 in 4 of Kentucky teenage women become pregnant at least once in their teenage years.
- Among teenage mothers the number of illegitimate births has increased by 40%.
- 40% of all one-parent families are below the poverty level.
- 55% of Kentucky mothers did not receive adequate prenatal care.
- 22,975 (or 35%) of students in the high school class of 1982 dropped out of school before graduation.
- 68% of all offenders committed to the Kentucky correctional systems have not completed high school.
- Kentucky ranks 50th in the nation in the number of adults with a high school diploma.

The direct connection between family condition, income and prior education (socio-economic status), and success in school, which has been long apparent, persists today. Using figures from the National Center for Education Statistics we see that:

- Students in the highest socio-economic status quartile scored twice as high as those from the lowest quartile on reading tests.
- Students whose parents finished college scored 80% higher in reading scores than those who did not finish high school.
- Students from families with incomes above $50,000 scored 230% higher than those from families under $8,000.
- 66% of students whose family income is below $8,000 live with one parent; 18% of students whose family income is above $50,000 live with one parent: "Students who live with both parents have higher grades in high school."[2]

There are also quite practical reasons for investment in children: demographic changes will make their future productivity imperative. Three important changes are at work.

First, following two decades of declining birth rates, fewer than one-third of all households now contain children of school age. This is down

from almost 70 percent of families who had children in the 1950s. Not only does this decline reduce the natural corps of people concerned about children, but it means that the productive work force of the next fifty years will be reduced substantially. Soon there will be an absolute shortage of entry level workers.

Second, the number of older people in the population will continue to grow, especially after 2010, when the height of the baby boom generation begins to reach retirement age. Even today 7 out of 10 Americans can expect to reach age 70. More dramatic is the fact that 4 out of 10 people now reach age 80.

The third condition, the result of the first two, is a looming national problem of serious consequences. As Alan Pifer of the Carnegie Corporation reports, ". . . there will be a disastrous imbalance between the number of active workers paying for the benefits of retired persons and those enjoying them." In 1950 sixteen people were working for every retired person; today, three people work for every retired person; by 2010 two people will work for every retired person.[3]

One conclusion is obvious: we have to make the most of every person who can work in the future to sustain our economy.

> When these children reach their most productive adult years there are simply going to be very few of them to meet the normal responsibilities of that period of life. These responsibilities, of course, include earning the national living, manning the nation's defenses, staffing its public services and supporting those who are dependent, whether children or the elderly. If, therefore, we have any concern at all about the future of the nation, we have no choice but to get today's people off to the best possible start by investing seriously in their development.[4]

What do these facts say about our state, our communities, and our schools? They show that the failure to improve the condition of children in the early stages of life determines whether social institutions, often schools but just as often welfare agencies and prisons, must handle the problems later. They show that high school dropouts must be dealt with in their earliest years. They show that the needs of children permeate the entire fabric of the society, not the schools alone. They show that the lives and problems of all children, not just our own and our neighbors, affect all Kentuckians.

These figures show that reforms, such as increasing academic requirements and teachers' salaries, reducing class size, requiring school attendance, and others, are not the only route to educational reform, because such solutions will run headlong into the obstacle of deeper

maladies. They show that schools cannot be set apart from the community and cannot be immune to its conditions; while some of these conditions can be accommodated or responded to by schools, schools alone cannot prevent them. While schools can provide sex and parenting education, they cannot prevent teenage pregnancies; while schools can train for work, they cannot provide jobs; while schools can teach health, they cannot make children healthy; while schools can teach about social responsibilities, they cannot make children be responsible citizens.

If we truly believe that Kentucky's people are its most valuable resource, then we must make a new commitment to all of our children and a new investment in their futures. By the time children reach the age for school the effects of harmful environmental factors have already taken their toll.

We believe that Kentucky parents and families want to provide what is best for their children. But the condition of some families prevents this. When that happens the citizens of Kentucky must follow through, assuring the support and services necessary for each child. Our new commitment to our children must include:

- a healthy birth
- basic health care, nutrition, and safety
- the early identification of special health, emotional, or learning disabilities
- a caring and stable family environment
- freedom from abuse or threats to personal safety at home or away from home
- an enjoyable and stimulating preschool learning environment to lay a foundation for future social and educational growth
- equal access to a comprehensive educational program in schools with high academic quality and strong community support
- access to adults who encourage, inspire, and listen
- role models for responsible social and community attitudes
- the opportunity to take responsibility for their own actions.

In the recommendations below we emphasize that Kentucky must both **prevent** problems before they occur and also **respond** with creative solutions to problems which already exist.

Prevention

Kentucky pays for the costs of poor early childhood conditions later—in unemployment, welfare and health costs, high school dropouts, crime and poverty, remedial education in high schools and colleges, and many other ways. It is time to invest in our children **before** their problems have reached the crisis level.

As Mr. Prichard said:

> That effort has got to begin not in the high school, not in the middle school, not even in the first three grades. It has got to begin in the preschools and the kindergartens and in the womb. . . . things such as prenatal care, child nutrition, emphasis on the learning process in the home, have got to be brought to those whose socio-economic disadvantages do not give them the leisure, the time, the opportunity for the kind of parental involvement that those who were raised in middle class families have enjoyed.

Three-and Four-Year-Olds Preschool Programs

The attitudes, values, and skills needed for success in school are acquired in the earliest years of childhood. These attitudes and skills come from many sources—parents and family, relatives, and community role models. If the children see that learning is valued and feel capable of learning, and begin kindergarten and the first grade ready and eager for school, they are more likely to succeed throughout their school years.

The importance of preschool programs for preparing young children is becoming more and more apparent. Years of research on Head Start programs support this view. Most recently a Michigan study compared nineteen-year-old disadvantaged youths who had preschool experience with those who had none. The study concluded "on a wide range of measures of school and life success young people who had attended a quality preschool program on average outperformed youngsters who had not." The study showed that those with preschool experience were more likely to complete high school (65% with preschool, 45% without)

and more likely to continue their education after high school.

For those with preschool, 48 percent were employed by age nineteen; for those without preschool, 29 percent were employed. With preschool 45 percent were self-supporting, without the figure dropped to 24 percent. For those with preschool, 22 percent had been arrested by age nineteen; of those without preschool 43 percent were arrested.

Preschool programs were cost-effective for the public. The "return on initial investment was equal to three-and-a-half times the cost of two years and seven times the cost of one year of preschool." For every $1,000 spent on preschool, $4,130 was returned to society in reduced costs for other services.[5]

The number of children in preschool programs across the nation is also rising rapidly, having reached 36.4 percent of all three-and four-year-olds in 1982. These enrollments, however, are directly tied to family income. For establishing preschool programs the figures show that a sizable portion of the population, especially those with adequate financial means, now provide a preschool experience for their children.

Preschool Enrollment

Enrollment in learning programs, as a percentage of all children in each age group. Family income figures from 1980.

	3 and 4 years and	5 years old	Total
1970	20.5%	69.3%	37.5%
1972	24.4	78.1	41.6
1974	28.8	78.6	45.2
1976	31.3	81.4	49.2
1978	34.2	82.1	50.3
1980	36.7	84.7	52.5
1982	36.4	83.4	52.1

	3 years old	4 years old	5 years old*	Total
Under $10,000	19.2%	38.5%	81.1%	45.4%
$10,000-19,999	29.9	36.6	84.2	46.8
$20,000 and over	40.7	62.8	88.0	64.2

*An additional 8.5 percent of 5-year-olds were enrolled above kindergarten level.

Source: *National Center for Education Statistics*

(Reprinted from **New York Times**, December 17, 1984)

I. We recommend that Kentucky make available a stimulating and comprehensive preschool readiness experience, which involves parents or primary care givers, to every three-and four-year-old who does not have it available. We recommend that the governor and legislature set a goal of providing, in cooperation with community organizations, this preschool experience by 1990 to all four-year-olds who do not have it available and by 1992 to all three-year-olds who do not have it available.

In addition to preschool readiness, a comprehensive preschool program must include these special features.

A. We recommend that the preschool program include a comprehensive program for the early identification and diagnosis of learning or physical disabilities. Medical treatment or other corrective action must be provided to all children who need it as required by Public Law 94.142. Kentucky has programs to provide health care to children who are eligible for medicaid. These programs should be funded fully so that all eligible children may receive necessary medical services.

There is clear evidence that not all children learn in the same way; children (and adults) have different "learning styles." Various factors can also contribute to identifiable learning disabilities. These differences and difficulties must be identified early, with teaching approaches varied to meet each child's needs. A program such as "Project Read," which identifies early childhood reading styles and offers alternative teaching technology, provides one model of early prevention which should be expanded.

B. A comprehensive preschool program must emphasize involving parents or the child's primary care giver in the preschool educational process. Effective preschool programs include training for the parents of young children, including the importance of good nutrition, visits to the home by school staff, and active engagement of parents in the school itself. This component is especially important for the children of teenagers, who themselves may still be in high school or be preoccupied with their own personal development.

C. The Head Start program is the most widespread comprehensive preschool program currently in place. Extensive research has shown Head Start to be an effective and cost-efficient program. A recent

study indicates that for every $1,000 invested in it at least $4,000 is returned to society in the reduction of other costs. Yet Head Start serves only about 20 percent of all children who are eligible for it. The Kentucky program should build upon, and be administered cooperatively with, Head Start programs.

D. The so-called weekend school for three-and four-year-olds not attending a regular preschool is an immediate and cost-effective option or interim step for communities. "Weekend schools" have been tried with great success elsewhere in the nation.[6] A "weekend school" combines several activities for three-and four-year-old children, particularly helping parents (especially teenage parents) work constructively with their children and helping young children develop skills underlying future development. This optional program should include these components.

- All children would attend a one-half day session (morning or afternoon) with a qualified instructor and a program focused on skills that facilitate later learning: special skills in language, gross and fine motor skills, and creative skills.
- Every child would be tested so learning and/or physical disabilities could be detected and learning styles identified.
- Parents and children, in small neighborhood groups, would be visited once each week to witness and to practice appropriate teaching techniques.
- Parents would be provided with materials and instruction for working with their own children
- Parents would work as volunteers in the school.

E. We recognize that these programs will be a monumental undertaking for the Commonwealth of Kentucky, but they offer one way to break cycles of ignorance. It will take several years to implement these Programs, but the governor, legislature, and State Board of Education must begin now to determine the most appropriate means of providing such services. We suggest that it is not necessary that they be located solely in the existing school system, but instead be collaborative projects of community agencies and libraries, voluntary associations, business, government, and the schools.

Teenage Pregnancy

Kentucky has a high rate of teenage pregnancy compared to the national average. Teenage pregnancy often results in an unhealthy and deprived condition for both mother and child. More than one in five Kentucky children is born to a woman under twenty. Teenage pregnancy has been increasing in nonmetropolitan areas of Kentucky much more rapidly than urban areas. Without adequate medical care, teenage mothers face a great risk of serious medical complications. One report states that "seven out of ten pregnant adolescents under the age of fifteen do not get any prenatal care through the first trimester, and nearly one-fourth of these women either get no prenatal care or delay it until the end of pregnancy."[7] The children of these young mothers are almost twice as likely to die in their first year and more likely to have low birth weight, developmental disabilities or mental retardation. Teenage mothers are more likely to drop out of high school, to be unmarried, to hold low skill or low wage jobs. Fifty-six percent of them live in poverty.

A recent economic development plan for Mississippi found teenage pregnancy to be a major obstacle to economic development in that state. We believe a similar condition exists in Kentucky. That report stated,

> Preventing teenage pregnancy would contribute more to the reduction of dependency, the lowering of health care and welfare costs, and the future employment opportunities for large numbers of poor women than any other measure. Studies have estimated that for every dollar spent in providing planning and other preventive services, three dollars in potential public spending is averted. In the short-term that many more public dollars can be saved over the course of the teenager's potential work life.[8]

The causes of increasing rates of teenage pregnancy lie deep in social attitudes, family conditions, low self-esteem, and the values that adolescents bring to their sexual relationships and their own responsibilities.

The adolescent male's zeal for sexual maturity and prowess can blind him to connections between sexual maturity and the responsibilities of being a parent and providing for his offspring. Young men must be helped to understand their own sexuality and the responsibilities that accompany sexual maturity. Young women must be helped to gain the self-confidence to make wise decisions based upon the psychological and physical aspects of childbearing.

Society will successfully discourage and confront the problems of adolescent pregnancy only when its young people acquire positive attitudes about their own futures. Effective programs must also deal with parents' attitudes, and they must reach the entire community, not just teenagers.

II. **We recommend a state-wide initiative aimed at reducing and addressing the problems of teenage pregnancy.** This initiative should be a partnership of state and local agencies, voluntary associations, churches, and others. (The Kentucky Coalition for Teenage Pregnancy has provided a model to be considered.) It should be a comprehensive community-based program which includes the following approaches.

To discourage teenage pregnancy:

— it should involve and educate the parents of adolescents

— it should offer information through television and other media to reach both adolescents and their parents.

To deal with the consequences of teenage pregnancy:

— it should encourage teenage mothers to stay in high school

— it should support adequate health care

— it should build upon effective model programs, such as the Louisville school system's Teenage Pregnancy Program.

Prenatal Care

Regular quality health care can significantly reduce a newborn's risk of illness, permanent disability and death. During pregnancy, regular prenatal visits can reduce or eliminate many problems for the mother and child.

Prenatal care pays for itself over and over. In contrast to the high human and financial costs of infant and long-term health problems associated with inadequate maternity care, outpatient prenatal care is quite inexpensive. The Southern Regional Task Force on Infant Mortality cited the following examples:

- the American Academy of Pediatrics reported in 1984 that cost effectiveness estimates range from two to ten dollars saved for every dollar spent on prenatal care;
- Michigan state officials found that over six dollars could be saved on every dollar spent by the state to provide prenatal care to uninsured women;
- Virginia found that by providing better prenatal care, the state could save $49.8 million annually in state expenditures for long-term care for persons with mental retardation alone;
- Florida has projected savings in neo-natal intensive care, long-term care and special education costs if comprehensive preventive prenatal health care were provided to all women at or below 150 percent of poverty. For a projected cost of $14 million, savings would be almost $26 million.[9]

III. **We recommend that Kentucky provide access to prenatal care and to neonatal care, through a network of community based-public and private sources, for all Kentucky mothers.**

RESPONSE

Only over a long period of time can schools hope to change basic social attitudes and conditions. And even then schools can neither change conditions caused outside of the schools nor instill values which are contrary to those of the community. Schools can, however, provide programs which encourage and support desirable goals if these goals and programs are supported by the community, families, and parents.

But as a practical matter Americans are committed to the belief that schools must attempt to educate all children. And since their condition affects how well children learn (for example, hungry children do not pay attention), schools themselves must **respond** to the condition of their students.

Since schools are the one institution having contact with all children, they cannot escape a major share of responsibility for the condition of young people. On the other hand, states and communities have placed schools in a perplexing dilemma. Over the last generation we have come to ask our schools to both prevent and respond to problems.

Many of these problems were, in earlier times, the responsibility of the family, the community, or the church. And while most people know that too much is expected of the schools, we are still bound by these high expectations of the schools. Indeed, we are so bound by these expectations that it is difficult for the imagination to contemplate another arrangement.

Our recommendations for responses are based on the hope that, over time, schools will gradually be unburdened of some of these responsibilities, so that they can concentrate on what they can do best. Schools must work more closely with other community institutions to share their responsibilities. Our recommendations are also based on the belief that meaningful, not cosmetic, change will take much time and require basic changes in values and attitudes.

Youth Community Service

Today's teenagers need the opportunity to take responsibility, to make meaningful choices, to make a contribution, to be treated with respect, and to respect themselves. Many adolescents have been isolated from responsible adult roles. "We have," says one observer, "created what might be called compulsory youth—a substantial time between dependence and independence, a twilight zone of uncertainty and ambiguity of status."

Many young people have also "disengaged" themselves from their high schools. Even though physically present in the high school, they have decided that school has little relevance to their lives or their futures. These students have simply "tuned out" of the learning experience. Others simply leave school altogether as dropouts. (See also Chapter II of this report.)

We know that many young people learn better from active engagement with real situations than from passive reflection. We also know that many young people are eager to take responsibility, to make contributions, and to be respected as the young adults they are.

IV. **We recommend that all high schools be required to offer a program of community service for students in their tenth, eleventh or twelfth grade year.** The State Board of Education should establish guidelines and regulations for this "youth community service" and it should become part of the school accreditation process. Pilot programs should be established.

In a youth community service program students would commit a specified amount of time to service in their communities, under the supervision of a teacher (or counselor, tutor, or mentor) and/or a community based person.

It is essential that the community service experience be structured as both a **learning** experience and a **serving** experience. Teacher supervision should provide in-school opportunities for reflection on the work experience, for reading assignments, and for a personal log or journal about the experience and its influence on the individual student, etc.

Community service might include work with children (day care centers, kindergartens, etc.); work in hospitals; work in rest homes or with the elderly; work in mental hospitals; volunteer work with other community agencies; independent research for government or community groups; or many other activities.

Community Involvement

The education of young people will not improve substantially until parents take a major share of the responsibility for their children and engage actively in school affairs. But parents and communities have become increasingly disconnected from schools. This results partly from changing values and attitudes, partly from the real difficulties parents have in being involved (in part because in over 50 percent of all families both parents work), and partly from both intentional and unintentional school actions which exclude the public and parents. We agree with Harold Howe, former U.S. commissioner of education, about the way this process has evolved by the three groups within schools.

> . . . the elected or appointed representatives of the people on local and state boards, the managers or administrators appointed these boards and responsible to them but entrenched enough in their pseudo-professionalism and power to have a separate life of their own, and the teaching profession, which is increasingly organized to enable it to deal with the other two. But they exist within a triangular preserve about which they make a common assumption—**that no one else should be allowed within that preserve.** As long as they are successful in maintaining that posture, there is little hope in accomplishing what I am recommending: the recognition of new voices in decision making about the nature of education at the local school level.[10]

V. **We recommend several approaches to increasing parent involvement and forming partnerships with parents.**

A. Elementary, middle or junior high schools, and high schools might establish **community advisory councils**. A community advisory council should be real, not cosmetic; it should be chaired by a private citizen and should have adequate representation from the community and from parents. It should include teachers, administrators, and representatives of agencies which serve the school population.

The community council should be advisory and should consider some of the following issues:

- the state accreditation process and the role of the community in it
- the allocation of funds for gifted and/or disadvantaged young people
- the support for special activities in the schools and the assignment of people from the community to work in them—areas such as arts education, counseling, nutritional activities, etc.—to ensure that these are responsive to community needs
- activities conducted outside the schools (for example, field trips)
- the development of special programs, such as those for students with learning styles not compatible with traditional approaches, and the importance of these programs within the school
- recommending school goals and priorities, including the communities' expectations of administrators.

B. We recommend that local boards of education ensure that their buildings are open to the public and that school buildings are used as **community centers**. While school personnel should not become the managers of community events, physical facilities should be available to any in the community who need public facilities for community activities when schools are not in session or when facilities are not used by school students.

C. Creating advisory councils and opening schools to the community will work best if staff is provided to organize and communicate. **Each**

school system should have such a coordinator under provisions of the Kentucky Community Education Act (KRS 160.157) funded by the General Assembly.

D. Parents need to make a renewed effort to engage themselves with the schools and with their children's school work. So that they will be knowledgeable and directly connected to the schools, **parents or guardians might be expected to pick up school report cards.** (Schools must make this form of communication possible for all parents, including those who work.) If report cards are not picked up, teachers or other personnel should visit students' homes.

Counselors

Each school counselor in Kentucky is responsible, on the average, for 478 students at the junior high and high school levels. Counselors in the elementary schools are almost nonexistent; Kentucky averages one counselor for each 1,491 grade school children. In many schools counselors have more responsibility for school management and extracurricular activities than for counseling students. The hope that adequate counseling services will be provided to students, except those who are the most aggressive and talented or the most troubled, is an idle dream. No school child should be deprived of needed counseling in school because of limitations on personnel or finances.

VI. **We recommend that all noncounseling responsibilities be removed from counselors' workloads and that counselors' responsibilities be clearly identified as personal counseling, career guidance, and referral to existing community agencies. All elementary schools should have trained counselors by 1992.**

With modest grants from the Department of Education for administrative assistance, a "volunteer school counselor program" using community persons (such as retirees, local businessmen, or parents) should be established to fill the apparent personnel gap. These volunteers should receive essential but brief and convenient training, but should not be required to complete traditional certification process.

In-school Day Care

While the primary efforts to address and reduce teenage pregnancy must be undertaken in the community and the family, in reality the increasing teenage pregnancy rate directly affects the schools and the effectiveness of education. The unmarried teenage girl is likely to drop out of school to care for her child. Over the longrun the children of teenage mothers are more likely to begin school with a disadvantage.

The increase in teenage childbearing and changes in family structure have changed the way young parents acquire the knowledge to be effective parents. High schools, in cooperation with the community, must support positive parenting among young parents. In-school child development centers should concentrate on parent involvement and developing knowledgeable and confident young parents.

VII. **We recommend that appropriate school buildings be made available for day care sevices during and after school hours. These services should be available to the children of students, school personnel, and the general public.**

This child care might take the form of in-school Child Development Centers. The centers' purposes would be to:

- provide child care services and learning activities for two-, three-, and four-year-olds whose parents work or are attending the high school
- provide practical learning experiences for high school students who would work in the centers as part of their youth service responsibility
- provide opportunities for new parents to learn and grow through new parent meetings and consultative services.
- provide care for "latchkey" children

The Child Development Centers should be supported, after modest "start-up" grants from the State Department of Education, with fees paid by all parents. These centers would not be intended to compete with private day care centers. Indeed, private centers might provide services in schools through contractual arrangements.

FOOTNOTES

Chapter IV

1. The information below is taken from Debra Miller and Sandra Tuley, **Kentucky's Children at Risk: The Inequities in Public Education** (Louisville: Kentucky Youth Advocates, 1984), and C. Emily Feistritzer, **Cheating Our Children: Why We Need School Reform** (Washington, D.C.: National Center for Education Information, 1985).

2. Feistritzer, p. 6.

3. Alan Pifer, " 'Hard-Headed' Arguments for Investment in Children," **High/Scope Resource**, 2, No. 2, pp. 2-5.

4. Pifer, p. 3.

5. **Changed Lives: The Effects of the Perry Preschool Program on Youths Through Age 19** (Ypsilanti, Michigan: High/Scope Press, 1984).

6. "Parents as First Teachers," Ferguson-Florissant School District, Missouri.

7. Verna Keith & Lorraine Garkovich, "Trends in Adolescent Childbearing in Kentucky: 1970-1977," University of Kentucky, College of Agriculture, Agricultural Experiment Station, Department of Sociology, January, 1981.

8. "An Agenda for Mississippi," Lexington, Kentucky, State Research Associates, 1984.

9. **A Fiscal Imperative: Prenatal & Infant Care** (Atlanta: Southern Regional Task Force on Infant Mortality, February, 1985).

10. **Harvard Education Review**, 54, No. 1, February, 1984.

V
Indicators of Effective Schools

> The one big issue that faces us in Kentucky . . . is the issue of quality and high standards of performance in our schools, ranging all the way from kindergarten to graduate school and professional school.
>
> Edward F. Prichard, Jr.

Schools will begin to improve as people develop and voice their high expectations. Constructive local reform must begin with information about how well local schools are performing. We must examine their strengths as well as their weaknesses. Standards for evaluation are essential.[1]

What do we need to know about our schools? How do we gather local information to assess local performance and needs? Because of the complexity of the task and the technical challenges of gathering data, we may need assistance from outside.

New accreditation standards have been established by the State Board of Education. Reports on how well schools meet these standards will be published in local newspapers. These will be potentially helpful tools. But state level standards will have limitations when applied to local schools, and they may need explanations, which are not available locally, to be properly understood. As an example, the ranking of schools within a community or county without the addition of other information about those schools (such as the socio-economic condition of the student body) may be misleading.

Our Indicators of Effective Schools are designed for use by people who are analyzing and evaluating their local schools. Since such analysis is complex and technical, this is only an **ideal** list of indicators, not one which can be implemented soon or easily used. Information which answers all our questions is not yet available. Sophisticated ways of measuring student performance to fulfill our objectives may not yet have been developed. We do not believe, however, that technical or cost limitations should prevent aspiring to this ideal. Although it may take several years, measuring all indicators is the ultimate goal.

In the immediate future local school districts may use those indicators

for which **objective** data are already available. But the limitations of using only currently available data mean this measurement should be only a temporary step. If new methods of measurement and analysis are needed, they should be developed as soon as possible.

The technical limitations of gathering data have forced educational leaders to evaluate only selected school goals and objectives. Since we do not believe that this approach is helpful to improved education, we recommend that all established goals for the schools be evaluated, and not just those for which data are now available.

To evaluate school effectiveness on the local level will take a great deal of hard work. Local citizens' groups might be assisted if comparisons with other school systems are available. We therefore suggest, and may assist with, the dissemination of reports from selected districts so that other districts may see how an evaluation document is prepared. We also believe that the State Board of Education and the State Department of Education should consider the indicators we suggest here as additions to or modifications in their annual reports. We submit these recommendations to those officials with the hope that all possible consideration will be given to their use.

What We Should Know About Our Schools

A community checklist and a detailed explanation of all indicators will be available as companion pieces to this document. Below is a brief summary for community discussion.

I. How Well Are Students Learning and Progressing?

At the heart of each school's performance is what students learn. The first concern is how well students are mastering academic competencies in relation to their abilities. The emphasis should be on what the student **gains** in achievement, not on the actual level of achievement. Progress is the key objective. Student progress can be measured by linking standardized tests and standardized measures of ability, but it is important not to be bound by standardized tests. Other measures are needed. These would include observations and evaluations by teachers; exercises such as performances, presentations, or participation; written essays or oral presentations; works of art; and levels of accomplishment in generally acceptable competitions.

II. How Well is the School and the Classroom Environment Organized to Help Students Learn?

Students cannot learn and teachers cannot teach if the conditions around them do not encourage learning. Teachers tell us that the classroom conditions are a primary factor inhibiting learning and discouraging good teaching.

Several critical elements can be observed and evaluated.

A. What is the overall "climate" or "atmosphere" of the school? Does the school have:

- a safe, orderly, and academically focused atmosphere
- an atmosphere that encourages each student's sense of belonging and the importance of personal responsibility
- an atmosphere in which teachers feel they do participate in decisions and feel responsible for the school
- an atmosphere which welcomes parents and the community
- an atmosphere where learning is the most important activity and academic expectations are clear
- clear rules of conduct, both formal and informal, and sensible but firm management of misconduct
- the opportunity for students to improve their self-confidence and to grow as individuals
- open and healthy communication between teachers, students, and administrators
- clear school policies regarding homework and extracurricular activities
- adequate support services for students, such as counseling, food service, etc.
- a cooperative and open atmosphere with the local community and strong community concern and involvement in the school?

B. Effective schools must have leadership which ensures that students' educational goals are met, that teacher educational process and can concentrate on their teaching responsibilities, that state

and local policies are implemented, and that teachers and staffs are fairly evaluated and rewarded for performance.

C. An effective school must have a plan which has been initiated by school administrators, with the participation of teachers and the community, and which makes clear the school's purposes and its strategies for accomplishing those purposes. Responsibility for completing the plan, and for its quality, rests with school administrators.

III. How Well Are Students Prepared for Work and Further Education?

In addition to academic performance, schools also have a responsibility for preparing students for living after school—particularly further or additional education or employment. Schools cannot be expected to perform equally well for all students. Preparation for work and further education is also a goal shared with the larger community and the family. Schools nevertheless continue to aim a sizable share of their efforts at helping young people accomplish this goal.

People should know how well the graduates of high schools do when they seek employment or continue their education. Schools should follow their students' further progress for several years after they have graduated.

IV. How Supportive Is the Community Environment?

The quality, health, and problems of local schools are linked directly to the quality, health, and problems of the communities in which they are located. To know their schools, people must know their communities. Any analysis of school effectiveness which looks at a school in isolation (for example, only through the test scores of students) and which ignores the community context can be misleading and even harmful.

Some questions which need to be asked are:

What is the condition of the community?

What evidence is there of adequate local support (financial or otherwise) for local schools?

What evidence is there that the community values educational accomplishment and excellence?

How is the community involved in the schools?

How does the community compare to others in citizen and voter participation, in its economic health and level of employment, in its crime rate and other social health indicators?

FOOTNOTES

Chapter V

1. Appendix A provides a detailed explanation of each of the following items. This appendix, plus a workbook entitled "What Makes a Good School," published by the committee, provide a means for local citizens to evaluate their schools.

VI
Vocational and Community College Education

> In an information-directed, service oriented, high technology economy the prize will go ever increasingly to those who can seize it with brains, with learning, with training.
>
> Edward F. Prichard, Jr.

Since 1969 there have been nine studies related to either Kentucky community college education or vocational-technical education, or both.[1] The effort required for a new study, one as comprehensive as the past studies, is unnecessary. As its alternative, we decided to 1) review, with the advice of outside experts, these previous studies; 2) analyze, with the help of the Kentucky Economic Development Corporation, the future of the Kentucky economy; 3) gather opinions from vocational education and community college education officials; 4) analyze the productivity (degrees awarded, enrollment, and similar factors) of the current vocational education and community college system; 5) review current trends in vocational education and community college education; 6) make its recommendations based on the steps above.

Previous Reports

Several common themes emerge from the majority of these older reports, published between 1969 and 1983. Some substantial changes have, of course, been implemented since their publication. These themes from previous reports include:

- There is no systematic state-wide coordination of postsecondary vocational education, community college education, and two-year regional university programs.
- There is limited funding for all aspects of associate and baccalaureate education and vocational education.

- Two-year programs in community colleges and regional universities tend to emphasize prebaccalaureate preparation over occupational programs. (Modifications have occurred since earlier reports.)
- Two-year programs are dominated by university faculties, departments, and administrations whose mission orientation is more toward traditional academic programs and not always consistent with comprehensive community college missions and purposes.
- There are only limited cooperative relationships between community colleges and area vocational schools (although since 1976 several articulation agreements have been developed).
- There is an emphasis in vocational education on high school students rather than adults.
- The greatest vocational education enrollments are in consumer education and homemaking, business and office, agriculture and practical arts at the secondary level. At the postsecondary level the heaviest enrollments are in industrial education, business and office, special programs, consumer and homemaking, and health.
- There are weak career guidance and counseling services in most two-year postsecondary programs.
- There is limited ability to hold vocational systems accountable because there is limited emphasis on productivity and no single locus of responsibility.
- There is a diffusion of review and approving authority at the state level.
- There is limited responsiveness to the needs of business and industry and the needs of modern technology in vocational education.
- There is a need for more basic academic skills combined within vocational education.

Trends in Vocational and Community College Education

The professional literature describes the community college as a college which, through its open door policy, essentially provides an op-

portunity for education to those least served historically by higher education. Access is an important purpose, but another critical dimension relates to the educational programs of these institutions. The community colleges' evolution has been intertwined with the evolution of American society from an industrial economy to a so-called "postindustrial," information-based society.

According to Louis Bender of Florida State University,

> Two-year postsecondary educational programming was a response to two trends behind the current information society. Prior to World War II, no major advance in the economy took place in the absence of "discovery." We had to discover electricity, discover internal combustion, discover the telephone and telegraph. Since WWII, however, all major advances were the result of "theory." Moving beyond discovery to theory has, of course, been accelerated by the computer. The computer, through simulation, can test theories and help move theory toward prototype and then "productivity."

The result, for the modern economy and consequently for academic programming at the vocational postsecondary two-year level, has been the need, since World War II, for a new group of workers—people who can understand the "why," or the theory behind a particular kind of work. Economists say that prior to World War II we really had a two-tier manpower structure—there were "professionals" (who often were managers) and there were "workers," whether skilled or unskilled. Since 1945, however, a three-tier structure has emerged. In addition to the worker and the professional, we now have a group characterized by the terms "technician," "paraprofessional," or "middle management." This is the so-called middle manpower spectrum that the two-year college, the associate degree, the certificate programs, must serve because the educational needs of the group combine general education's theoretical knowledge with skills and hands-on application. It brings together emerging new knowledge and the application of that new knowledge in a practical technological setting.

As a result, there must be a subtle but significant difference in the two-year program offerings. Programs for this middle manpower spectrum must contain a substantial general education component, including math and science, to undergird the understanding of the theory behind the practical application. These programs bring theory and practice together.

Still another condition is at work, particularly in colleges and universities. The academic faculty of the traditional community college is often

oriented toward traditional academic disciplines. The faculty subculture, the faculty "ethic," looks at knowledge in its historic academic setting—the generation and consideration of original knowledge. They approach curriculum design more from the faculty and discipline perspective than with regard to the application of knowledge. But at the same time there is another kind of faculty, those who respond to and involve themselves much more directly with the economic community. That faculty asks, "What are the skills, the knowledge, the competencies needed in the community against which we should design programs that respond to the unique requirements of the community?" Instead of the faculty determining the scope and content to be learned in isolation, the approach recognizes that employers know what knowledge, skill, and expertise must be mastered if an employee is to succeed. A partnership in the design of a curriculum emerges.

The critical manpower need of the new economy is in the middle manpower areas. These are the people who, although not researchers in the information economy, will make it work. These are the people with enough understanding of technology and its effects to adapt to the changes required in the workplace, who will earn the middle class salaries and become the middle class of the future.

Secondary Vocational Education

Vocational education at the high school level has recently faced serious questioning and renewed study. Eva Galambos, research associate for the Southern Regional Education Board and author of the SREB report "Issues in Vocational Education," recently summarized these questions. Her conclusion: ". . . we ought to stop fooling ourselves in saying that we're going to prepare youngsters for specific occupations in high schools."

Galambos argues for renewed emphasis on incorporating more academic content into secondary vocational training. Why? She says:

- The chances of getting jobs or higher salaries are not improved for vocational students over other students (except for students, mostly women, in "office occupations" programs.)
- Most vocational education is in comprehensive high schools and "most of the comprehensive high schools can't afford enough staff or equipment for occupationally specific training."

- Students do not stay in programs long enough "to have any substantial entry level skills."

Rather than specific job skills the Southern Regional Education Board study says we should emphasize "those transferable skills that apply to all jobs . . . reading comprehension, the ability to calculate, the ability to communicate. These are the basic skills that everyone is going to have to have in our changing technological society."[2]

The 1984 report, **An Opportunity for Excellence**, of the Chamber of Commerce Task Force, Kentuckians for Excellence in Education, had this to say about secondary vocational education.

> It is generally believed that public school vocational courses enhance students' chances of obtaining employment and tend to deter many students from dropping out of school. If they do drop out, their chances of gaining employment increase if they have participated in vocational education. Unfortunately, research has failed to substantiate the belief that availability of vocational education programs deters male students from dropping out of public schools. Research findings, however, do show that the availability of such courses may tend to cause young women to stay in school longer. On the other hand, it appears that enrollment in vocational education tends to reduce the likelihood of students completing one full year of college after they graduate from high school. This is true for both men and women. Generally, young men who take high school vocational education do not appear to be in a more advantageous position in the labor market than those who pursued a general curriculum.[3]

The National Commission on Secondary Vocational Education in its report **The Unfinished Agenda** recommended no one single approach to vocational education. Yet it gave six recommendations, three of which pertained to the improvements needed in the content of vocational courses. These were:

> Secondary vocational education courses should provide instruction and practice in the basic skills of reading, writing, arithmetic, speaking, listening and problem solving.
>
> In addition to developing occupational skills, secondary vocational courses must develop self-esteem, positive attitudes toward work, safe work habits, job seeking skills, and other general employability skills.
>
> Vocational education courses must be enriched to make these courses attractive to all students including the college bound.

> The issue is not whether secondary students should be prepared for jobs, nor is the issue whether secondary students should receive a general education or a specialized education. The truth of the matter is that all students need both kinds of preparation. It is not an either/or situation. Students seeking employment in the skilled and technical occupations must first develop a strong foundation in general education. Upon that base is built the specialization. For many students, depending upon the occupational area of interest, the specialization will come at the postsecondary level of education.[4]

Recent revisions in the federal vocational education act parallel this thinking. In the new Carl D. Perkins Vocational Education Act, according to a report by the Southern Growth Policies Board, "the intent is clearly that vocational and academic skills are both important and related and that the basics and theory ought to be treated as part of vocational preparation." This new intent is based on the board's view that "today . . . there is a growing emphasis by both employers and educators on the need for higher order thinking in the work place," a condition which applies equally to secondary and postsecondary vocational education.

The Kentucky Economy: Past and Future

To assist this committee, the Kentucky Economic Development Corporation prepared a detailed report entitled "Estimates of Kentucky's Economy in the 1990s." (See Appendix B for complete report.)

The KEDC report shows that Kentucky's employment and income trends from the past decade are "likely to be continued in the decade ahead." To some degree these trends run parallel to trends in the national economy—a shift from a manufacturing economy toward a service economy. Service industries, or so-called "service production," have shown the most growth and will continue to show the most future growth in Kentucky.

Manufacturing employment declined by 8 percent during the 1972-1982 period, although it continues to be the single most important economic activity in Kentucky and represents 21.2 percent of Kentucky's total nonagricultural employment. But Kentucky will do well in the decade ahead to retain the current level of manufacturing jobs. The national trend toward reduced manufacturing employment is expected to continue, and this will be felt in Kentucky. Furthermore, many

of Kentucky's leading manufacturing firms are investing heavily in processes that will increase automated manufacturing. Thus, there will be two somewhat countervailing trends. It is expected that manufacturing employment will increase somewhat, through expansion of existing firms and the overall health of the nation's economy, coupled with the attraction of new firms because of Kentucky's natural advantages (e.g., location, transportation system, land and water resources); but it will also decline because of increased automation and shifts away from traditional industries (e.g., tobacco processing and manufacturing, distilling).

Mining employment, particularly coal mining, will reflect the national demand for energy, which in turn is tied to national and international economic conditions. Domestic use of coal has not grown as rapidly as was expected immediately after the energy crisis of the early '70s, and the export market has virtually disappeared. U.S. and Kentucky coal are presently uncompetitive in world markets because of high mining costs, high transportation costs, and the strength of the dollar. Furthermore, regulatory uncertainties (e.g., acid rain) cloud coal's future. For these reasons, estimating future mining employment is difficult. A reasonable projection is that mining will stay level, or perhaps increase slightly if there is an upturn in the economy during the next decade.

The service sector or "service production" side includes "wholesale and retail trade; services; government; and finance." There are two clear types of employment in the service sector. One type (for example, in retail sales and fast food) is characterized by low pay, low levels of responsibility, and low education requirements except at the mid-management and management levels. The other type (for example, insurance, finance, government) is highly dependent on information processing. Occupations in these latter areas might include word processing, computer programming and analysis, as well as white collar management and supervision—all needing education at about the associate degree level.

It is likely that changes in employment levels and wholesale and retail trade will follow overall economic conditions. Underpinning these economic conditions will be a steady increase of 11 percent in the state's population from 1980 to 1990. It is not unreasonable to expect that the long-term growth in employment in wholesale and retail trade will be in the range of 1-2 percent per year, depending on the impact of state tax laws. Retail employment will also be increased by changing concepts. For example, after a long decline in filling station employment,

it appears that linking petroleum marketing with convenience food shopping will lead to increased employment in filling station/convenient stores.

In the finance area employment levels will increase at the rate of the state's population growth. One exception is the insurance industry, which will probably grow more rapidly. The industry projects a growth rate of 6-7 percent per year, largely through increased services and some automation. It is also expected that government employment (federal, state, and local) in Kentucky will increase at a rate of about 1.5 percent per year. And it is possible that the current enthusiasm for improving education in Kentucky might lead to additional teaching jobs—especially considering a projected increase in children, or the "baby boom echo," in the late 1980s and early 1990s. Nevertheless, it is difficult to estimate these levels until additional funds are available.

Within the "services" category, (part of the "service production" group), there is a wide spectrum of activities ranging from highly skilled to unskilled employees. For example, "tourism and travel" is one of the state's largest labor components. In 1982 approximately 100,000 persons were employed in this industry; about half of these were employed in hotels and motels and another 25 percent were in restaurants. This total amounts to about 30-35 percent of Kentucky's service jobs. The tourism and travel industry is affected by national and regional economic conditions and also by seasonal factors. Nevertheless, this is a strong segment of Kentucky's economy, and it is expected to grow at least as fast as the state's population, or about 11 percent, over the decade to 1990.

Another significant component of the service production is the health care industry. Currently, 53,000 persons are employed in or affiliated with Kentucky's hospitals. Of these about 10,000 are registered nurses and another 39,000 are housekeepers, maintenance and janitorial workers, and supporting staff. Hospital industry employment is expected to grow at about the same rate as the population.

Finally, the fast food industry is a critical part of the services production group. Fast food employment has grown rapidly in the nation and in Kentucky and this trend is expected to continue during the next decade. Because most of the jobs associated with this industry are unskilled, the KEDC report makes no estimate of total employment in this field.

Kentucky's Changing Skills Requirements

KEDC's observations about Kentucky's economic future lead to several conclusions. In the manufacturing area investments in automation and machinery will probably increase the demand in numbers for engineers, computer scientists, technicians and mechanics, and repairers and installers. In the heavy industries there will be a decline in demand for craft workers, operatives, and laborers.

Office automation will probably result in a decreased demand for clerical workers. Other clerical workers—those, for example, who use word processors—will need to be upgraded. Kentucky is generally expected to follow the nation's trend with increases in the service sector industries, most notably tourism and travel, financial services, and fast foods. Some of these will come from postsecondary vocational school and community college middle manpower programs.

A considerable amount of the employment in Kentucky's future will be at a relatively low salary level. It will require a basic education, the ability to adapt to large institutions, the ability to communicate with the public and with fellow workers, and the ability to learn basic skills such as machinery operation. The needed employment group, however, will also include managers, sales and service personnel, and people to handle information. These individuals will implement the information and technical economy in the middle manpower levels.

The Kentucky Economic Development Corporation summarizes its view: "It is imperative that Kentucky's educational system provide persons with good backgrounds in the basic skills of reading, writing, mathematics, use of computers and good work and study habits. It is more important for a person to be adaptable to a variety of occupations than it is to be trained for a specific one."

In addition, the report concludes, "the need for training/retraining is apparent when one considers that 85-90 percent of the 1990 work force will consist of workers who are currently on the job and that 70-75 percent of this work force will constitute the work force of the year 2000. Greater emphasis should be given to blue collar career planning, incorporating programs of retraining adults for new jobs due to their present or new employers. Youth entering the work force might require retraining two or three times during their working careers."

The Condition of Vocational Education/Community College Education in Kentucky

What is Kentucky vocational education and community college education producing? We attempted to approach this question in two ways: 1) with general observations on the status of the enterprise in Kentucky, and 2) with analysis of enrollments and degree production in Kentucky's vocational and community college systems.

Kentucky's arrangement of vocational institutions and community colleges is complex. It is also unusual among the states, being comparable in structure only to West Virginia and Louisiana, where there are two-year programs in the public baccalaureate institutions, some free-standing community colleges, and postsecondary community colleges.

Thirteen community colleges are administered by the University of Kentucky (through the office of the chancellor for community colleges) and governed by the University of Kentucky Board of Trustees. In addition, a second system exists in that each of the other seven public universities may operate community college programs on its campus, ultimately governed by each university's board of trustees. The mission of all these institutions is to provide associate degree programs and certificate programs, and also to serve as the open door to higher education.

The third system is administered by the State Department of Education's Office of Vocational Education. This system consists of 57 area vocational schools plus 5 health institutions, 5 correctional programs and 9 area centers under contract with local schools, and 17 state vocational technical schools located across Kentucky.

Finally, there is another group of schools not examined in this report—numerous proprietary or for-profit schools which provide technical training (e.g., electronics), career training, associate degrees, and diplomas.

The vocational school system is organized into "area vocational schools" and "state vocational technical schools." About 70 area vocational schools give priority to high school students (who are bussed from their high school buildings to attend classes) but allow older students to attend when space is available. The 17 "state vocational technical schools," on the other hand, are first to serve adults and, on a space-available basis, some high school students. Both systems are administered by state government through the Office of Vocational

Education. Teachers in the schools are state employees under the Department of Personnel and state salary scales.

We conclude that there are three negative results from this arrangement, all recognized in previous studies:

1) Although area vocational schools serve local high school students, the local boards of education have little control over curriculum, planning, or personnel. Integration of academic programs (the teaching of English, for example) is thus very difficult. As one state official says, the result is that "the vocational school goes one way, the high school another."

2) Administration of local area schools by state government, particularly of personnel, means that personnel policies, especially salaries, are often out of line with local school benefits and salaries. There is no local flexibility in administration.

3) The administration of both systems by the State Department of Education has resulted in limited attention for "postsecondary" programs which by necessity should be different from secondary vocational programs. No clear or focused postsecondary programming has occurred. (We believe this contributes to limited programming for the middle-manpower spectrum Kentucky needs.)

A report prepared by MGT of America for the Kentucky Council on Higher Education has analyzed the general status of education in Kentucky.[5] In general, the report documents production at various educational levels. In general, it shows that Kentucky's degree and certificate production at the high school, vocational, two-year, and bachelor's level is low, and that master's degree and "first professional degree" production is high—all compared to 18 states used for comparisons in their research. (See table.)

STUDENT LOWER LEVEL ENROLLMENT IN TWO-YEAR INSTITUTIONS AND VOCATIONAL CENTERS AS A PERCENTAGE OF TOTAL FULL-TIME EQUIVALENT STUDENTS F.T.E. ENROLLMENT IN PUBLIC INSTITUTIONS

	Percent Stds Enroll. in Two-Yr and Voc. Inst.
Kentucky	22.0%
Comparison States	37.3%
Alabama	25.5%
Arkansas	27.1%
Florida	59.6%
Georgia	41.3%
Illinois	47.8%
Indiana	30.4%
Louisiana	9.5%
Maryland	37.7%
Mississippi	36.7%
Missouri	25.8%
North Carolina	40.8%
Ohio	47.6%
South Carolina	47.3%
Tennessee	27.7%
Texas	35.6%
Virginia	33.6
West Virginia	14.1%

State Postsecondary Education Profiles Handbook, Education Commission of the States, 1980. Plus addition of postsecondary vocational/technical education enrollments not included in handbook.

The report states: "The only educational area where Kentucky is out-producing most of the other comparison states is at the master's degree and first professional degree levels. Kentucky granted **more** masters' degrees per 100,000 population than 12 comparison states and more professional degrees per 100,000 population than did 15 of 17 com-

parison states . . . . Based upon current trends, Kentucky can expect the general education level of its adult population to continue to fall behind that of most of the other states unless corrective action is taken."

According to the MGT study, comparisons of the total educational output, **including both private and public institutions,** with other states reveal that:

- At the two-year degree level Kentucky granted, in 1980-81, fewer degrees per 100,000 population (ages 18-44) than the average for the comparison states in math and science oriented disciplines and other disciplines. Only in the health area did Kentucky produce more.
- At the bachelor's degree level, when compared to the average of the other selected states, Kentucky granted, on a per 100,000 population (ages 18-44) basis
  - about the same level of degrees in education
  - significantly fewer degrees in health, business, math, and science oriented disciplines, and others (social sciences, arts, and letters).
- At the master's degree level, when compared to the average of the other states, Kentucky granted on a per 100,000 population (ages 18-44) basis
  - significantly more degrees in education (about 40 percent more)
  - significantly fewer degrees in health, business, and the math and science oriented disciplines
  - more degrees in the other disciplines.
- At the first professional degree level Kentucky, when compared to the average of the other states, on a per 100,000 population (ages 18-44) basis, granted more dental degrees, more pharmacy degrees, about the same M.D. degrees, a fewer law degrees, and significantly more theology degrees (all from private institutions).
- Kentucky has fewer public two-year institutions than all states except Arkansas, Louisiana, and West Virginia.
- Kentucky has a significantly smaller proportion of its public higher education enrollments in two-year institutions than all except Louisiana and West Virginia.

The MGT report concludes that

"if Kentucky wants to be a major competitor for a share of the nation's future economic growth . . . the Commonwealth needs to restructure some of its education programs and reallocate its dollars so that:

- the state's higher education system has a well-developed set of programs to educate a much higher percentage of the population.
- more graduates are produced in the fields that will support the economic growth of the state and fewer graduates are produced in fields of relative oversupply.

. . . Kentucky is investing an amount per capita in postsecondary education that is slightly above the median of the comparison states. Yet, the education attainment level of the Commonwealth's population continues to lag behind that of other states who are investing less. This suggests that Kentucky is spending a higher percentage of its public education funds on the higher cost programs than most other states. . . . secondary data, such as enrollments and degrees granted, indicate that Kentucky is putting more emphasis on the higher-cost programs.

The percentages of Kentucky's population with 1-3 years of college and 4 or more years of college are significantly below the averages of the comparison states and the national averages. A review of degree data indicates that Kentucky is falling significantly behind the educational attainment levels of other states in granting two-year degrees and bachelor's degrees. Kentucky's enrollment in 2-year institutions is significantly below that of all except three of the comparison states, in spite of the fact that educational costs in 2-year institutions are generally 15-25 percent lower than similar costs in 4-year institutions.

Research surveys have shown that employers prefer technically trained employees with strong basic education backgrounds so that they have the ability to adapt to changes in technology.

Neither Kentucky's community colleges nor its vocational technical systems have ever received funding levels sufficient to be recognized for the breadth and quality of their programs.

Views of Vocational-Community College Administrators

To determine the views of those directly associated with vocational and community colleges the committee's consultant (Lou Bender) conducted interviews in late August. Those interviews with Kentucky officials produced the following observations:

Kentucky's vocational education system is unusual. It is a state-operated system—most other states provide for secondary vocational programs to be at the local school district level. Kentucky also has three different postsecondary delivery systems (state vocational technical schools, community colleges and regional universities) while few other states would have more than two of this combination. All three systems have constituencies and advocates. It is doubtful that structural change will be possible politically in the immediate future even if it were educationally and economically desirable.

Kentucky's programming for the middle-manpower spectrum does not have a single plan or design. Furthermore, there is little evidence that state economic development goals and postsecondary programming have been coordinated or that any monitoring of existing offerings takes place. Low enrollment classes, small institutions, and duplication of programming results in limited rather than comprehensive postsecondary programming. The evidence would suggest Kentucky is not systematically preparing for the middle-manpower requirements as are competing states.

Most strategies for change reported by the interviewees assumed a change in the structure (different sponsors, a single system, etc.) but then most interviewees predicted such would be politically impossible. There did not seem to be clear understanding of the middle-manpower spectrum which has emerged since World War II and for which associate and certificate programming is characteristically directed. Eyes seem to be on the present design and not on future requirements.

State officials and leaders in Kentucky seem to have strong viewpoints on vocational and community college education; but views are quite divergent. Officials directly responsible for the vocational or community college education delivery systems understandably believe the present secondary and postsecondary vocational education in Kentucky is what is needed and the various systems are efficient. Other officials as well as governmental, business and community leaders view Kentucky as suffering from unjustifiable institutional self-interest at the expense of students and the economy.

There was general agreement that the state-operated vocational schools (secondary and postsecondary) are hampered by the state agency character of the structure which results in purchasing, personnel, construction requirements being those of general state government. The unique nature and requirements of vocational education result in dysfunctional regulations and procedures that result in time constraints, unrealistic conformity requirements which result in the loss of flexibility and timely response to program needs of local areas, existent or potential employers, etc.

There was also general agreement that Kentucky's multiple postsecondary vocational and technical delivery systems should cooperate to maximize opportunities for students, better serve employer needs, and minimize duplication or related cost inefficiencies. However, there was not agreement on whether this is now being realized. Interestingly, state officers declared such cooperation was presently marginal and localized while their state level advisory members proclaimed just the opposite.

The greatest divergence in perception pertained to postsecondary occupational programs. Almost half declared the programming to be timely, comprehensive, flexible, coordinated and appropriate for contemporary as well as future needs (students or employers). The other half embraces the opposite view. They paint a picture in which state-operated postsecondary vocational technical schools are high cost, narrow and limited in scope of programming, and generally obsolete. This view portrays the community college system as unduly influenced by University of Kentucky priorities and without enough community-based or middle-manpower training orientation. The regional university associate degree programs are described as FTE (full-time equivalent students) generating devices which are carried out as "screening" or "proving" grounds for the four-year degree paths and out of touch with the clear middle-manpower spectrum which can only be served by a specific institutional purpose or mission to meet this need.

That group of leaders who are critical of Kentucky's system (or non-system as they would declare) point to the competition between and among the three existent deliveries. They argue that none do the job required if Kentucky is to move from its low position among competing states. Their view is that each delivery system is unduly restricted by the sponsor organization (state, UK, or regional universities). They declare the only total solution would be to have a separately organized, unified postsecondary delivery system that is solely dedicated to the mission of the comprehensive postsecondary middle-manpower spectrum. They tend to identify several states in the Sunbelt as the models for the type system they would advocate for Kentucky, including North Carolina, South Carolina and Florida.

They declare Kentucky is being short-changed in appropriate opportunities for its citizens (particularly adults); for its economic development needs (existent as well as prospective employers); and its taxpayers. They are pessimistic that the solution can be achieved by other than major structural change.

Contemporary Picture

The committee requested a variety of information from the three state level agencies responsible for vocational and postsecondary community college education data: the Kentucky Department of Education, the Council on Higher Education, and the community college system of the University of Kentucky. Each of the agencies was most cooperative and made available as much information as its systems would allow. The committee wishes to express its appreciation for the prompt and significant assistance provided by each of the agencies.

Upon reviewing the information made available, it was immediately obvious that no single or comparable reporting system exists in Kentucky. One set of information reports enrollments by programs but does not identify these by individual institution. Another system reports enrollments and degrees conferred by program and by institution but carries out no cost analysis.

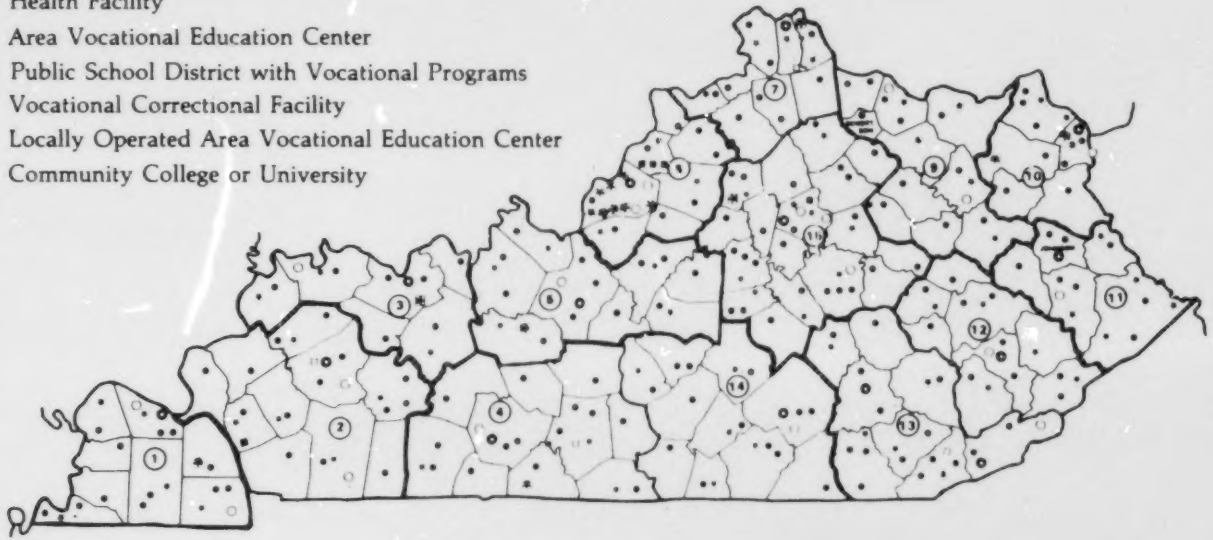
The vocational technical programs operated by the Kentucky Department of Education and the community college system of the University of Kentucky can be said to have a central office for overall planning and operations coordination. This coordination is not apparent for the two-year associate degree programming of the seven regional universities. The Council on Higher Education does play a coordinating role in regard to new program approval, but it does not have the responsibility for overall state-wide associate degree program planning and priority setting among the three different types.

The absence of any central locus of responsibility and authority for two-year postsecondary vocational and community college education results in overlapping service areas, some duplication of programming, and haphazard relationship of academic programming with the manpower needs of Kentucky. (See map.)

FACILITIES OFFERING VOCATIONAL PROGRAMS IN KENTUCKY BY REGION

Facility Codes

- State Vocational Technical School
- Vocational Technical School
- Health Facility
- Area Vocational Education Center
- Public School District with Vocational Programs
- Vocational Correctional Facility
- Locally Operated Area Vocational Education Center
- Community College or University



Source: Kentucky Department of Education

Another consequence of the existence of three different systems in Kentucky can be seen in the fact that each system has units which suffer from an economy of scale. It is generally accepted nationally that a comprehensive community college cannot serve fewer than 750 students. In recent years enrollment in the University of Kentucky community college system has increased, so that several institutions which once enrolled less than 500 students are now larger than that. Two institutions, however, enroll less than 750, and one is only slightly above that number (See chart, The Community College System.)

Two of the seven regional universities also have associate degree enrollments which would be below the national norm. More important, however, is the fact that five of the seven regional universities have unusually low degree completion rates. The national norm of 30-40 percent was achieved only by two of the regional universities (See charts I and II)

I. **The Community College System**

College	Enrollment: Fall, 1983	Degrees Conferred Arts & Science	1982-83 Applied	Total
Ashland	2,031	96	107	203
Elizabethtown	2,259	113	130	243
Hazard	650	28	31	59
Henderson	1,092	24	91	115
Hopkinsville	1,284	54	60	114
Jefferson	7,179	105	373	478
LTI	2,532		321	321
Madisonville	1,409	16	93	109
Maysville	653	40	67	107
Paducah	2,098	63	127	190
Prestonburg	1,154	82	40	122
Somerset	1,079	50	75	125
Southeast	799	14	53	67
Totals	24,219	685	1,568	2,253

II. **Regional Universities, Kentucky State University and the University of Louisville**

Institution	Two-Year Enrollment 1983	Associate Degrees 1982/83	Percent
Eastern Kentucky University	1,514	278	18%
Kentucky State University	394	54	14% (of which 50% is Nursing)
Morehead State University	1,045	249	24%
Murray State University	283	77	27%
Northern Kentucky University	1,389	258	19%
University of Louisville	860	326	38%

Source: Kentucky Council on Higher Education

Since figures were not available for the state administered vocational technical schools, no comparable analysis could be made of them. It appears, however, that Kentucky has a problem of too many institutions from these three systems located in close proximity. Needless administrative overhead costs thus must be borne by the citizens of Kentucky.

Planning for Kentucky's vocational needs requires data which are consistent across all three systems. Without a clear overview of degree production, enrollment in and completion of specific majors, and student job placement, no comprehensive planning can take place.

Recommendations

> No longer can we rely on a work force where it is sufficient to have a strong back and a weak mind . . . . The new opportunities will have to come in those new areas that require much higher levels of training and education in the labor force. We are finding that more and more training for the vocations which will become increasingly available involves not merely the traditional vocational training but a certain degree of academic attainment.
>
> Edward F. Prichard, Jr.

Many of the problems identified in previous studies continue to confront Kentucky. The existence of three different systems for delivering

vocational and technical and associate degree level education results in little coordination or comprehensive planning, inadequate data for planning, and limited programming for state economic needs. Three separate systems cannot be expected to effectively evaluate programs for their correctness or to avoid unnecessary duplication or to focus programs on the state needs. In part, three different systems contribute to the limited funding available for postsecondary vocational and community college education in Kentucky.

Kentucky must have a planned and coordinated system of postsecondary education. Previous studies concluded that the solution was to rearrange the governance of the three systems (e.g., a single governing board for all three systems; creation of a "181st school district" for vocational education, etc.). We believe, however, that this recommendation in previous studies failed because a good case was not made as to why a change in governance was needed. We believe that the necessary first step is planning, with decisions about governance following from that plan.

The timing of the recommendations below with the implementation of the new Carl D. Perkins Vocational Education Act is also advantageous. In the past, federal funds could be used to "expand, extend or maintain, where necessary," vocational programs. A large majority of these federal funds under the old law were used for program maintenance. Under the new law, however, except for the set asides for the disadvantaged and handicapped, funds must be used for expansion or innovation.

We recommend that several steps be taken by appropriate state officials.

I. **Move the administration of postsecondary vocational technical education from its current administrative location in the State Department of Education and establish an independent governing board.**

II. **All previous studies, and our review of the current situation, lead to the conclusion that comprehensive planning for postsecondary vocational and community college education* in Kentucky is required. Indeed, many recommendations of previous studies could have been implemented if such a plan were provided.**

This planning process must include the following steps:

A postsecondary vocational and community college plan should be completed to determine the proper means for the state to coor-

dinate activities and to maintain a coordinated planning process. This step should include consideration of a single governing board for all three types of vocational-community college programming. This subcommittee believes such a structure is probably the most desirable one.

Reconsideration of the governance of vocational education must be based on sound planning. The Secretary of Education, with appropriate agencies involved, should prepare the plan above (including draft legislation for 1986) to implement the following objectives:

- focus vocational programs and community college programs on the middle-manpower spectrum
- provide a means for the separate governance of secondary vocational education and postsecondary vocational technical education
- eliminate overlapping, duplication, and obsolescence in program offerings, particularly between vocational-technical schools and community colleges
- eliminate or modify schools and campuses which are too small to provide comprehensive and effective educational programming
- increase cooperation and coordination of vocational-technical schools with other two-year postsecondary programming
- create systematic and consistent data on postsecondary education.
- make projections of adequate funding.

If this plan is not implemented within a reasonable period, the General Assembly should devise a plan for program planning and coordination and governance of postsecondary vocational-technical education and two-year programs under a single, unified governance system.

III. State funding policies should clearly identify and set priorities which favor middle-manpower education and training programs which contribute to Kentucky's economic future and respond to the needs of business and industry.

*"Community college education" used here means the University of Kentucky community college system and community college programs at regional universities.

IV. **With adequate funding, area vocational schools should be administered directly by local boards of education under state planning guidelines and goals.** These schools should concentrate on secondary programs and should offer postsecondary programs only to meet special, temporary, and clearly defined local needs. A funding program similar to the minimum foundation program should be established to provide adequate state financial support for area vocational schools.

State vocational-technical schools should offer programs that are clearly postsecondary in content. They should concentrate on retraining and upgrading manpower as well as entry level skills. They should not be seen as adjuncts to local secondary programs, but should operate under a plan for meeting postsecondary program needs determined by state manpower needs. Planning for these programs should be addressed in the plan in recommendation[2] (above) and should involve the Council on Higher Education, in cooperation with the State Board of Education and the Advisory Council on Vocational Education. If administrative or governing changes are needed to focus vocational-technical schools on postsecondary programs, then such changes should be made.

V. **The scope and content of secondary vocational education program offerings should be thoroughly reconsidered by state officials, and a plan for comprehensive change should be provided. This change should de-emphasize secondary programs which provide specific job training in specific job areas (such as masonry or auto mechanics) and emphasize programs to help students acquire broad learning and competencies which can be applied to many occupations.** Emphasis should be on broad, "generic" skills, rather than specific job training. This will mean that some current programs are eliminated from the curriculum and that new courses and programs are developed. Some teachers will need to be retrained for new teaching responsibilities or for teaching their subjects from new perspectives. The state should provide adequate funding for any necessary retraining or relocation of teaching staff.

VI. **State vocational-technical schools and community college programs of the University of Kentucky and the regional universities should be designed to meet Kentucky's needs for the middle-manpower personnel spectrum encompassing technicians, paraprofessionals, and mid-managers.** While this manpower group

does not need baccalaureate degrees, it must have both an understanding of theory and the practical skills to be productive and to be relevant to employer needs. This concentration on the middle-manpower spectrum will make vocational education production more relevant to Kentucky's economic future as identified in the Kentucky Economic Development Council report cited above in this report.

Faculty professional development programs should be initiated which complement this objective through orientation about employer needs in Kentucky as well as provisions for keeping current in technology and other areas of change.

Guidance and counseling programs should be improved in areas of career planning, personal development, and academic advisement.

VII. **Postsecondary vocational and community college education programs should focus as much attention on their programs for training workers and upgrading skills of existing workers as upon entry level skills.** These programs must be conducted in cooperation with Kentucky employers. Short-term and temporary programs in cooperation with business must be provided in a dynamic economy. The financial costs of such programs should be borne jointly by the state and by employers.

VIII. **Institutional data on enrollments, programs, completions, costs, and placement should be gathered by state officials so that comparable information is regularly reported to appropriate officials for purposes of planning, coordination and evaluation.**

FOOTNOTES

Chapter VI

1. **Community Colleges in the Commonwealth**, by Associated Consultants in Education for the Kentucky Council on Public Higher Education, 1969.

   Preliminary Report on Vocational Education to the State Superintendent of Public Instruction and State Board of Education, Gerald B. James, October, 1969.

Report on Occupational Education, State Commission for Postsecondary Education, May, 1977.

A Study of Community College Education in Kentucky, Council on Higher Education, August, 1977.

Joint Review of Vocational/Technical/Occupational Programs, Department of Occupational Education & Council on Higher Education, October, 1978.

Program Evaluation: Kentucky Special & Vocational Education Programs, Research Report No. 174, Legislative Research Commission, 1980.

A Study of Public School Finance & Management, Cresap, McCormick & Paget, Inc., July, 1981.

Vocational Education: Program Priorities, Department of Education, June, 1983.

A Review of the Medical, Dental, Law & Engineering Programs in Kentucky's Institutions of Higher Education, submitted to the Kentucky Council on Higher Education by MGT of America, Inc., 1983.

2. Eva C. Galambos, "Improving Vocational Education: What Can Legislators Do?" (Atlanta: Southern Regional Education Board, 1984).

3. **An Opportunity for Excellence,** Kentuckians for Excellence in Education Task Force, 1984, p. 42.

4. **The Unfinished Agenda** (Washington, D.C.: National Commission on Secondary Vocational Education, 1985).

5. MGT of America, Inc., see note 1.

VII
Finance

It doesn't do to will the ends if you don't will the means.

Edward F. Prichard, Jr.

The purpose of this report is to determine the financial mechanisms necessary to implement the improved educational program recommended by the Prichard Committee for Academic Excellence. Our basic philosophy is that education is a joint state/local responsibility, under the leadership of the Kentucky General Assembly, as charged by Section 183 of the Kentucky Constitution: "The General Assembly shall, by appropriate legislation, provide for an efficient system of common schools throughout the state."

We have reviewed the fiscal situation of Kentucky, relative to other states; and studied the methods used by Kentucky and other states to finance education. The next two sections of this chapter discuss the major issues relevant to the recommendations; the final section develops the recommendations.

Taxation in Kentucky

Since state government provides the major portion of the funding for education, it is important to first examine the major sources of state government tax revenue and the growth of revenue from each source for fiscal years 1977-78 to 1982-83. Table 1 presents the data.

Taxes which are relatively more important in Kentucky than in the average state, at the state tax level, are severance taxes (many states have few resources to tax), motor fuels taxes, sales taxes on alcoholic beverages, and property taxes. Taxes which are relatively less important include the general sales tax, tobacco taxes, individual and corporation income taxes, motor vehicle license taxes and corporation license taxes.

Over the period 1977-78 to 1982-83, tax revenue in Kentucky grew much more slowly than in all fifty states, as the effects of the reces-

sions of 1980 and 1981-82 severely depressed Kentucky's economy. Revenues were depressed further by the 1979 Extraordinary Session of the General Assembly, which placed a ceiling on property taxes and removed the sales tax on utilities. Although Kentucky's revenues grew strongly in 1983-84, and are continuing to grow well in 1984-85, Kentucky's receipts are still below levels originally estimated for 1982-83. Part of Kentucky's slow growth in revenues, relative to other states, is that many other states enacted increases in major taxes during the periods of national recession, while Kentucky's new and increased taxes were more than offset by the exemption of residential utilities from the sales and use (general sales) tax.

The General Fund taxes which produce the most revenue in Kentucky are the sales and use tax, the individual income tax, the coal severance tax, property taxes, and the corporation income tax. Together they accounted for 75 percent of total Kentucky tax revenue and 87 percent of General Fund revenue in 1982-83.

It was noted above that state property taxes are relatively much more important to Kentucky state government than in the average state. This is due primarily to a 1976 law which transferred 30 cents of the local school property tax to the state, making the total state rate 31.5 cents. Kentucky is a fiscally "centralized" state—that is, it tends to fund a large share of state and local government activities at the state, rather than the local, government level. Table 2 shows that Kentucky ranks 5th in the nation in the proportion of state and local tax revenue raised at the state level.

Kentucky's tax effort is relatively high at the state level, very low at the local level, and relatively low at the combined state/local level. Table 3 reports the percentage of personal income devoted to state and local taxes in each of the fifty states. Kentucky ranks 36th on this measure of overall tax effort.

A much better measure of state and local tax effort was developed by the Advisory Commission on Intergovernmental Relations (ACIR). The commission devised a Representative Tax System (RTS) in which the tax base for each of 26 widely-used taxes is estimated for each state (e.g., total retail sales in each state would be the tax base for the general sales tax). Then the average tax rate, for all states, is applied to the base to estimate the amount of revenue a state would generate if it applied the average rate to its own tax base. Dividing this amount by the state's population results in a state's per capita tax capacity. A state's **tax capacity index** is its per capita tax capacity divided by the national average: an index value of 100 means the state has an average capaci-

Table 1.
Major Sources of State Government Tax Revenue
Kentucky and all States
Fiscal Years 1977-78 and 1982-83
(Millions of Dollars)

Tax	Kentucky				All States			
	Revenue 1977-78	Revenue 1982-83	Percent Change	Percent of Total 1982-83	Revenue 1977-78	Revenue 1982-83	Percent Change	Percent of Total 1982-83
Total	1,842.1	2,601.9	41.2	100.0	113,142.2	171,370.1	51.5	100.0
General Sales	531.2	700.4	31.9	26.9	35,229.0	53,626.8	52.2	31.3
Selective Sales:								
Motor Fuels	190.7	197.1	3.4	7.6	9,501.3	10,793.3	13.6	6.3
Alcohol	15.1	49.4	227.2	1.9	2,283.4	2,743.1	20.1	1.6
Tobacco	22.0	20.8	5.5	0.8	3,652.9	4,001.4	9.5	2.3
Other	172.9	219.6	27.0	8.4	7,548.0	12,675.6	67.9	7.4
Individual Income	389.9	647.2	66.0	24.9	29,088.2	49,788.6	71.1	29.1
Corporation Income	138.6	172.1	24.2	6.6	10,717.4	13,152.5	22.7	7.7
License:								
Motor Vehicle	47.9	71.6	49.5	2.8	4,463.7	5,777.7	29.4	3.4
Corporation	10.4	20.3	95.2	0.8	1,138.1	1,848.1	62.4	1.1
Other	25.3	39.5	56.1	1.5	2,040.6	3,025.6	48.3	1.8
Property	147.4	203.3	37.9	7.8	2,356.5	3,280.8	39.2	1.9
Death and Gift	21.8	38.0	75.7	1.5	1,837.3	2,544.6	38.5	1.5
Severance	128.2	221.4	72.7	8.5	2,492.9	7,396.7	196.7	4.3
All Other	0.7	0.9	0.0	792.9	715.3	9.8	0.4	

Note: Detail may not add to totals due to rounding.

Source: Compiled from U. S. Bureau of the Census, **State Government Tax Collections in 1978**, Series GF78, No. 1, U. S. Government Printing Office, Washington, D.C., 1978; **and State Government Tax Collectons in 1983**, Series GF83; No. 1, U. S. Government Printing Office, Washington, D.C., 1983.

Table 2

State Tax Revenue as a Proportion
of State-Local Tax Revenue, 1982

State	Proportion	Rank	State	Proportion	Rank
New England			**Southeast**		
Connecticut	56.9	(38)	Alabama	73.9	(11)
Maine	63.5	(26)	Arkansas	75.8	(8)
Massachusetts	61.9	(27)	Florida	60.3	(31)
New Hampshire	38.2	(50)	Georgia	63.5	(25)
Rhode Island	58.3	(36)	Kentucky	79.6	(5)
Vermont	58.8	(34)	Louisiana	67.5	(18)
			Mississippi	77.2	(6)
Middle Atlantic			North Carolina	72.8	(14)
Delaware	82.4	(2)	South Carolina	74.5	(9)
Maryland	59.5	(32)	Tennessee	60.5	(30)
New Jersey	56.0	(39)	Virginia	58.7	(35)
New York	49.1	(49)	West Virginia	78.9	(4)
Pennsylvania	61.8	(28)			
			Southwest		
Great Lakes			Arizona	64.4	(21)
Illinois	54.3	(43)	New Mexico	82.4	(3)
Indiana	63.7	(23)	Oklahoma	74.1	(10)
Michigan	55.3	(44)	Texas	59.2	(33)
Ohio	55.4	(41)			
Wisconsin	66.4	(20)	**Rocky Mountain**		
			Colorado	49.2	(48)
Plains			Idaho	71.4	(17)
Iowa	60.6	(29)	Utah	64.3	(22)
Kansas	57.0	(37)	Wyoming	63.7	(24)
Minnesota	72.3	(15)	Montana	54.8	(42)
Missouri	55.8	(40)			
Nebraska	52.3	(49)	**Far West**		
North Dakota	72.1	(16)	Alaska	90.3	(1)
South Dakota	51.9	(47)	California	67.2	(19)
			Hawaii	77.2	(7)
			Nevada	73.5	(12)
			Oregon	62.5	(45)
			Washington	72.9	(13)

Source: **State Tax Revenue as a Proportion of State-Local Tax Revenue**, 1982, Legislative Finance Papers, July, 1984, p. 28 (as reported in a Memorandum from C. Gilmore Dutton to the Interim Joint Committee on Appropriations and Revenue, February 27, 1985).

Table 3

State and Local Taxes as Percentage
of Personal Income, 1983

Rank	State	%	% Nat. Avg.
1	Alaska	33.0%	298.4%
2	Wyoming	20.2	182.8
3	New York	15.3	138.7
4	Minnesota	13.2	119.5
5	Wisconsin	13.2	119.1
6	Hawaii	12.9	116.3
7	Montana	12.6	113.4
8	Michigan	12.5	112.5
9	Vermont	12.2	110.0
10	Maine	12.1	109.3
11	Rhode Island	12.0	108.7
12	Oregon	11.9	108.0
13	Massachusetts	11.8	106.2
14	New Mexico	11.7	105.3
15	Washington	11.4	103.4
16	Utah	11.3	102.1
17	West Virginia	11.2	101.0
18	New Jersey	11.2	101.0
19	Maryland	11.1	100.6
20	Delaware	10.9	98.7
21	Iowa	10.9	98.1
22	Arizona	10.8	97.9
23	California	10.8	97.9
24	Nebraska	10.8	97.7
25	Pennsylvania	10.7	96.7
26	South Carolina	10.5	95.1
27	Louisiana	10.4	94.4
28	Illinois	10.4	94.1
29	Connecticut	10.4	93.8
30	Georgia	10.3	93.3
31	North Dakota	10.3	92.8
32	Ohio	10.3	92.7
33	Oklahoma	10.3	92.7
34	Nevada	10.3	92.6
35	North Carolina	10.2	92.0
36	Kentucky	10.1	91.0
37	Mississippi	10.1	91.0
38	Virginia	10.0	90.1
39	Idaho	9.9	89.7
40	Colorado	9.8	88.3
41	Kansas	9.7	87.6

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Rank	State	%	% Nat. Avg.
42	South Dakota	9.6	86.6
43	Alabama	9.4	84.6
44	Texas	9.3	84.1
45	Arkansas	9.2	83.4
46	Missouri	9.2	83.0
47	Tennessee	9.1	82.2
48	Indiana	9.0	81.8
49	Florida	9.0	81.6
50	New Hampshire	8.9	80.7

Source: **State and Local Taxes as Percentage of Personal Income, 1983.** State Policy Reports, 1984, p. 7 (as reported in a Memorandum from C. Gilmore Dutton to the Interim Joint Committee on Appropriations and Revenue, February 27, 1985)

ty; above 100 means an above-average tax capacity; below 100 means a below average tax capacity. A state's **tax effort** is the ratio of its actual revenue from a particular tax to the revenue calculated by applying the national average rate to the state's tax base.

Table 4 presents Kentucky's tax capacity and tax effort for state **and local** taxes. Kentucky's total tax capacity index is 81.9 percent of the national average, which means that even if Kentucky made an average tax effort, it would raise less revenue per capita than other states—because Kentucky's economy is relatively less developed than the economies of many other states. Kentucky has an above average tax capacity index only for motor fuels sales, tobacco sales, and motor vehicle license taxes.

Kentucky's overall tax effort index is 88.4 percent of the national average, which means that Kentucky applies below-average tax rates to its below-average tax base. Of the taxes which generate the most General Fund revenue, Kentucky underutilizes the property tax the most, collecting $381 million less than would be produced by national average tax rates. Since it was shown earlier that state government generates a high level of property tax revenue, it is **local** governments which underutilize the property tax in Kentucky. Other taxes underutilized in Kentucky are the sales and use tax, tobacco taxes, corporation income and license taxes and motor vehicle license taxes.

Table 4

Tax Capacity and Tax Effort, Kentucky, 1982
Combined State and Local Taxes

Tax	Capacity per Capita	Tax Capacity Index	Tax Capacity	Tax Revenue	Revenue per Capita	Tax Effort Index	Potential Revenue Incrmt
Total Taxes	909.48	81.9	3,357.80	2,969.28	804.25	88.4	---
General Sales	226.28	86.8	835.41	682.62	184.89	81.7	152.79
Motor Fuels Sales	49.00	107.3	180.90	202.44	54.83	111.9	---
Tobacco Sales	28.82	161.5	106.39	21.83	5.91	20.5	84.56
Alcoholic Beverage Sales	9.35	73.5	34.51	16.85	4.56	48.8	17.66
Other Selective Sales	43.21	n.a.	151.44	151.15	40.95		0.29
Corporate License	5.31	69.8	19.59	14.66	3.97	74.8	4.94
Motor Vehicle License	28.91	112.2	106.72	57.17	15.49	53.6	49.55
Other License	5.09	n.a.	18.81	16.74	4.53		2.07
Individual Income	154.80	70.7	571.50	802.71	217.42	140.5	---
Corporate Income	59.18	95.0	218.49	166.81	45.18	76.3	51.68
Property	252.02	71.4	930.45	549.85	148.93	59.1	380.60
Estate and Gift	5.73	56.1	21.14	29.61	8.02	140.0	---
Severance	41.79	111.6	154.30	256.84	69.57	166.5	---

Note: All per capita amounts are in dollars: total amounts are in millions of dollars

Source: Advisory Commission on Intergovernmental Relations, 1982 Tax Capacity of the Fifty States, Report A-93, Washington, D.C., date ? (unpublished, but soon to be published), Appendix B.

(It is noted that Kentucky recently increased taxes on alcoholic beverages and established a weight/distance tax.)

If each of Kentucky's underutilized tax bases were taxed at the national average rate, the state and local governments could have generated an additional $744 million in revenue in fiscal year 1981-82. By fiscal 1985-86, this sum would have grown to about $881 million.

Kentucky's property tax situation was greatly exacerbated by the provisions of House Bill 44, passed by the 1979 Extraordinary Session of the Kentucky General Assembly. This legislation limited to 4 percent per year the permissible increase in local property tax revenue from existing property (an increase above 4 percent is subject to approval of the voters), and also limited the state to a 4 percent annual increase in property tax revenues. Local governments may raise additional revenue from new property, but the state government may not. The effects of this limitation on state government property tax revenue are estimated in Table 5. The cumulative loss of state revenue between 1979 and 1984 was $207 million; as the state tax rate has decreased from 31.5 cents in 1979 to 22 cents in 1984. The loss of local government revenue was also substantial.

Table 5

State Property Tax Data, 1979-84

Year	Assessed Value ($ Millions)	Statutory Rate a)	Tax Revenue ($ Millions)	Tax Revenue with rate of .315	Revenue Loss ($ Millions)
1979	33,739.1	.279	94.1	106.3	12.1
1980	38,099.6	.241	91.8	120.0	28.2
1981	42,120.5	.229	96.5	132.7	36.2
1982	44,528.1	.224	99.7	140.3	40.5
1983	46,.25.4	.221	101.9	145.3	43.4
1984	48,577.6	.220	106.9	153.0	46.1

a) expressed as a rate per $100 of assessed value

Source: Kentucky Revenue Cabinet, **Statistical Appendix to the 1982-83 Annual Report**, Frankfort, March 15, 1984, Table XV, p. A-35, and information supplied by the Kentucky Revenue Cabinet.

In 1984 the General Assembly increased the local property tax effort required to participate in the "power equalization" program to 15

cents per $100 (HB 568). This change will mitigate, to a degree, some of the adverse impacts of HB 44, and could lead to more equitable funding among school districts. This issue will be discussed further in the section on educational finance, below.

A critical feature of Kentucky's property tax is the effective exemption unmined minerals from taxation. Since the constitution requires that all property be valued at 100 percent of fair cash value, the exemption, legislated in 1978, takes the form of setting the state tax rate to 1/10 of one cent per $100 valuation. In 1976 a law was passed which prohibits local governments, including school boards, from levying a tax on unmined minerals. The low rate is believed to cost the state from $18 million to $50 million per year, even at our current depressed tax rates, and to cost the school districts $16.1 to $44 million and the counties $14.7 to $40.8 million per year.

EDUCATIONAL FINANCE

This section first discusses the method by which education is financed in Kentucky, then examines briefly some data on educational revenue and expenditures in Kentucky relative to other states. Finally, problem areas are discussed.

Minimum Foundation Program[2]

The minimum foundation funding method was developed early in this century and has been widely adopted among states. In Kentucky the method was adopted and fully financed by fiscal year 1960-61. A miminum foundation program provides for a required property tax effort (initally 30 cents) which generates different amounts of revenue in different school districts depending upon property values. The state then provides sufficient additional revenue to bring each district up to a minimum level of funding per pupil (or per classroom unit). The funds must be allocated to specific expenditure items. The minimum foundation program provides some funds to every school district, but total per-classroom funds are equal in all districts. School districts may, if they desire, levy additional property taxes or other taxes to provide additional funds to supplement the minimum foundation.

The main advantages of a minimum foundation program are that it raises the level of educational expenditures and achieves a high degree

of equality in school expenditures among districts. In Kentucky approximately 92 percent of the state money spent on elementary and secondary education is distributed under the minimum foundation program.

As a result of legislative changes in 1966, school districts are allowed to increase their locally generated tax revenue by taxes other than the property tax: up to a 0.75 percent occupational license tax; up to a 20 percent tax based upon the taxpayer's state income tax liability; or up to a 3 percent tax based upon utility bills. As of 1984-85, eighty-five Kentucky school districts have levied a utilities tax, three have levied an occupational license tax, and none have levied an excise tax on income. Ninety-two school districts have not levied any of the permissive taxes.

Effective in fiscal year 1978, the "required local effort" was transferred to a state tax of 30 cents per $100 of taxable property value. At this time the minimum foundation program was changed to include the "power equalization" concept. Power equalization originally was like a voluntary minimum foundation program: a school district could receive state equalization funds by levying additional property taxes or one of the three permissive taxes. Districts with low per-pupil amounts of taxable property would receive enough state aid to give them a total amount (local tax revenue plus state aid) equal to the yield of a 5 cent tax in the county district with the highest per pupil value of property. This money was not tied to specific expenditure categories but could be spent at the district's discretion. Note that, unlike the minimum foundation, the power equalization program provides no funding to the richest school district.

House Bill 568, passed in 1984, requires that school districts levy a 15 cent property tax rate to participate in the power equalization program, although the state will "equalize" only 6.38 cents in 1984-85.

While this expansion of power equalization will make funding of education more equitable among districts, there is still considerable variation. For 1984-85, 11 percent of Kentucky's 180 school districts had property tax rates of 30 cents or more, 39 percent levied a 15 cent rate, and 6 percent levied a rate below 15 cents. The lowest rate is 2.5 cents, in Trimble County (which does levy a 3 percent utilities tax, however); and the highest is 69.3 cents, in Covington Independent.

Other evidence of fiscal inequality among Kentucky school districts was provided by Alexander, who found that although inequality among districts declined in the decade from 1971-72 to 1980-81 according to one measure, inequality actually increased when measured another

way.[3] Local revenues clearly became less equal during the period, while state revenues had an equalizing effect.[4] **On balance, significant inequality of revenue among districts remains.**

School Revenue and Expenditures

Kentucky ranked 42nd in public school revenues and expenditures per pupil in 1983-84, as reported in Table 6. Kentucky devotes only 21.8 percent of its state and local government expenditures to elementary and secondary education, compared to a national average of 24.5 percent; and it ranks 42nd among the 51 states plus the District of Columbia.[5] Kentucky spends only 80.4 percent (per pupil) as much as the average state (Table 6). Thus, Kentucky's relatively low tax effort manifests itself in a low level of support for education.

Table 6

Revenues and Expenditures per Pupil
in Average Daily Attendance
1983-84

Revenues			Expenditures			
Rank	State	Amount	Rank	State	Amount	Percent of National Average
1	Alaska	$7,808	1	Alaska	$7,026	221.43
2	Wyoming	6,132	2	New Jersey	4,943	155.80
3	New Jersey	5,172	3	New York	4,783	150.74
4	New York	4,929	4	Wyoming	4,488	141.45
5	Dist. of Col.	4,740	5	Dist. of Col.	4,116	129.71
6	Connecticut	4,400	6	Connecticut	4,036	127.19
7	Montana	4,348	7	Hawaii	3,982	125.51
8	Hawaii	4,238	8	Oregon	3,771	118.83
9	Delaware	4,185	9	Massachusetts	3,739	117.83
10	Pennsylvania	4,136	10	Delaware	3,735	117.71
11	Massachusetts	4,037	11	Pennsylvania	3,725	117.40
12	Maryland	4,013	12	Maryland	3,720	117.23
13	Illinois	3,989		Rhode Island	3,720	117.23
14	Oregon	3,985	14	Montana	3,631	114.45
15	Minnesota	3,903	15	Wisconsin	3,553	111.99
16	Kansas	3,881	16	Illinois	3,397	107.06
17	Wisconsin	3,863	17	Minnesota	3,378	106.45
18	Rhode Island	3,831	18	Kansas	3,361	105.94
19	Colorado	3,795	19	Colorado	3,261	102.78
20	Florida	3,567	20	Iowa	3,212	101.22

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Revenues			Expenditures			
Rank	State	Amount	Rank	State	Amount	Percent of National Average
21	Washington	3,512	21	Michigan	3,208	101.10
22	Iowa	3,511	22	Florida	3,201	100.87
	UNITED STATES	3,480		UNITED STATES	3,173	100.00
23	Vermont	3,450	23	Vermont	3,148	99.21
24	Oklahoma	3,416	24	Washington	3,106	97.89
25	Michigan	3,404	25	Ohio	3,042	95.89
26	Arizona	3,360	26	North Dakota	2,969	93.58
27	Ohio	3,356	27	Virginia	2,967	93.52
28	Texas	3,321	28	Nebraska	2,927	92.24
29	New Mexico	3,248	29	New Mexico	2,921	92.06
30	North Dakota	3,207	30	Texas	2,913	91.80
31	Nevada	3,199	31	California	2,912	91.76
32	Virginia	3,162	32	Oklahoma	2,891	91.10
33	California	3,154	33	Nevada	2,861	90.17
34	Missouri	3,137	34	Maine	2,813	88.66
35	New Hampshire	3,131	35	Louisiana	2,802	88.32
36	Nebraska	3,124	36	New Hampshire	2,796	88.12
37	South Dakota	3,087	37	Arizona	2,738	86.29
38	Louisiana	2,995	38	Indiana	2,730	86.04
39	Maine	2,977	39	South Dakota	2,640	83.19
40	West Virginia	2,972	40	Missouri	2,600	81.94
41	Indiana	2,911	41	West Virginia	2,587	81.52
42	**Kentucky**	**2,762**	**42**	**Kentucky**	**2,550**	**80.36**
43	North Carolina	2,591	43	North Carolina	2,447	77.11
44	South Carolina	2,557	44	Georgia	2,322	73.19
45	Utah	2,516	45	South Carolina	2,255	71.07
46	Georgia	2,461	46	Arkansas	2,198	69.26
47	Arkansas	2,436		Idaho	2,198	69.26
48	Idaho	2,364	48	Tennessee	2,173	68.47
49	Tennessee	2,239	49	Utah	2,119	66.77
50	Alabama	2,193	50	Alabama	2,102	66.24
51	Mississippi	2,095	51	Mississippi	1,962	61.85

Source: National Education Association, **Rankings of the States, 1984**. Tables F-2, H-11, and H-12

Estimated Annual Salaries of Public School Teachers

1983-84

Rank	State	Amount	Percent of National Average	Rank	State	Amount	Percent of National Average
1	Alaska	$36,564	165.98	26	Montana	$20,690	93.92
2	Dist. of Col.	27,659	125.56	27	Texas	20,176	91.59
3	New York	27,330	124.06	28	Iowa	20,140	91.42
4	Michigan	26,740	121.39	29	Utah	20,007	90.82
5	California	26,403	119.86	30	Virginia	19,867	90.19
6	Wyoming	25,197	114.38	31	Kentucky	19,780	89.79
7	Washington	24,780	112.49	32	Kansas	19,598	88.96
8	Rhode Island	24,641	111.86	33	Florida	19,497	88.51
9	Minnesota	24,400	110.76	34	Missouri	19,300	87.61
10	Hawaii	24,357	110.57	35	North Dakota	19,261	87.43
11	Maryland	24,095	109.38	36	Louisiana	19,100	86.70
12	Illinois	23,345	105.97	37	Nebraska	18,785	85.27
13	Colorado	23,276	105.66	38	Georgia	18,631	84.57
14	New Jersey	23,044	104.61	39	Oklahoma	18,570	84.30
15	Massachusetts	23,000	104.41	40	North Carolina	18,411	83.58
16	Oregon	22,833	103.65	41	Alabama	18,000	81.71
17	Wisconsin	22,811	103.55	42	Idaho	17,985	81.64
18	Pennsylvania	22,800	103.50	43	Vermont	17,931	81.40
19	Connecticut	22,627	102.71	44	Tennessee	17,900	81.26
20	Nevada	22,360	101.50	45	West Virginia	17,489	79.39
21	Arizona	22,090	100.28	46	New Hampshire	17,376	78.88
				47	Maine	17,328	78.66
	UNITED STATES	22,029	100.00	48	South Carolina	17,232	78.22
				49	Arkansas	16,929	76.85
22	Indiana	21,587	97.99	50	South Dakota	16,480	74.81
23	Ohio	21,290	96.65	51	Mississippi	15,815	71.79
24	New Mexico	21,000	95.33				
25	Delaware	20,934	95.03				

Source: National Education Association, **Rankings of the States, 1984**, Tables C-13 and C-14.

Kentucky ranks 48th in its percentage of school revenue from local government, 5th in its percentage from state government, and 7th in its percentage from the federal government.[6] This is further evidence of Kentucky's dependence on the state government rather than the local government in the funding of public services. Moreover, it also demonstrates the heavy reliance of Kentucky on the federal government in an era of cutbacks in federal spending. Lawmakers may soon need to make decisions about which federal programs, if they are reduced in the federal budget, must be replaced with state funding.

One area in which Kentucky's inadequate funding of public education is improving is in the level of teachers' salaries. Table 7 shows that, in 1983-84, Kentucky's average salary of $19,780 was $2,249 below the national average of $22,029 and $910 below the average of the median state. Kentucky ranked 31st in average salary compared to 42nd in expenditures per pupil.

It is clear that Kentucky faces three major problems in educational finance: inadequate funding **amounts**, poor participation at the **local** government level, and an unequal **distribution** of funds among school districts. Kentucky would have had to increase its funding of public elementary and secondary education by 24.4 percent, or about $364 million (from all sources: federal, state, and local), in 1983-84 to achieve the national average expenditures per pupil.[7] Perhaps a better comparison would be Kentucky's spending compared to the **median** state's expenditures. Such a comparison would eliminate the distorting effects that the extreme states have on **average** spending. To reach the median spending per pupil ($2,969), education spending in Kentucky would have to increase $245 million, or 16.42 percent. These figures do not include the funds necessary to improve higher education, for which the needs are also great. The adequate financing of higher education was the central concern of the first Prichard Committee report, **In Pursuit of Excellence**.

SUMMARY OF FINDINGS

The preceeding sections identified six major problems related to the funding of public education in Kentucky:

1. Kentucky has a low tax capacity, due to its relatively underdeveloped economy.

2. Kentucky makes a below average tax effort, especially with respect to local property taxes and state business taxes.
3. A large number of local governments in Kentucky have abdicated their responsibility for financing local schools by their reliance on state funding.
4. Kentucky's state government also provides too low a level of support to public education.
5. Educational funding is too unequal among school districts.

Recommendations

We believe that, if the recommendations of the Prichard Committee are implemented using the funding mechanisms recommended below, education will improve substantially in Kentucky. Further, the improvement in education will lead to a faster rate of economic development in Kentucky and therefore to an enhanced taxpaying capacity. This will not only solve the first major education problem listed above, but will also help Kentucky to provide a higher level of public services in non-education areas such as highways, criminal justice, and health care.

We have concluded that the recommendations contained in this report for improving elementary and secondary education cannot be implemented without a tax increase.

I. The General Assembly should look to those taxes which the state currently underutilizes, including the following taxes:

- property, including unmined minerals[6]
- corporation income
- corporation license
- certain sales, such as a tax on residential utilities
- tobacco

Furthermore, the committee would be opposed to any effort to erode the existing tax base, including any liberalization of tax rules affecting depreciation, as has been proposed by others.*

II. This committee adopted a resolution in 1981 calling for the repeal of House Bill 44. We repeat the call for the repeal of House Bill 44, to permit school districts to raise as much property tax revenue as they need and to allow the state to set whatever tax rate is prescribed by the Kentucky General Assembly. We recommend returning to the former rate of 31.5 cents, effective in 1986.

*This statement should not be interpreted to mean that Kentucky businesses should not be allowed to depreciate long-lived assets.

III. a) Increase the local minimum effort for "power equalization" from 15 cents (specified in HB 568) to 25 cents;

b) Provide state funding to "equalize" the full 25 cents;* and

c) Convert the use of power equalization funds from discretionary to specific instructional items.

If Kentucky is seriously to address the problem of elementary and secondary education, reform must begin at the local school district level. At the same time, state government has a responsibility to insure that comparable effort generates comparable financial resources for the state's school districts.

The thrust of this recommendation is twofold: it would raise the minimum level of local support and it would greatly equalize funding in terms of per pupil spending. New revenue sources must be identified to generate the $114 million necessary to implement this recommendation. Implementation would also result in $23 million in local funding, although several school districts already meet this funding requirement. For those districts choosing to levy other permissive taxes for education, the revenue thereby generated should be considered as the local required effort for equalization purposes.

Table 8

Power Equalization Financial Data, 1984-85

	Rate	Incremental Amount ($ 000)	Total Amount ($ 000)
1984-85 support	6.3811¢	–	$ 39,177.5
Alternate Increased Allotments:			
State Funds	7.3811¢	$ 6,139.6	43,317.1
State Funds	15¢	52,916.5	92,094.0
Local Funds	15¢	0	n.a.
State Funds	20¢	83,614.5	122,792.0
Local Funds	20¢	9,808.9	n.a.
State Funds	25¢	114,312.5	153,490.0
Local Funds	25¢	22,857.6	n.a.
State Funds	30¢	145,010.5	184,188.0
Local Funds	30¢	36,023.2	n.a.

Source: Governor's Office, Commonwealth of Kentucky

With the increased state support must come accountability at the local level. Power equalization funds must no longer be discretionary funds. Instead, the General Assembly should specify the instructional purposes of the appropriation in much the same way as funds are appropriated under the minimum foundation program. In the event that this is not done, the minimum foundation program should be the vehicle for any increase in funding. Moreover, the committee would support having power equalization become an element of the minimum foundation program.

It is emphasized that the $114 million cost of this recommendation does not add to the cost of the other recommendations contained in this report. Power equalization is not a programmatic item such as teachers' salaries or operating expenses. Instead, power equalization is a funding mechanism—a way of distributing whatever funds are available. This recommendation

identifies new funding needs of $114 million and seeks to distribute these funds in an equitable basis, thereby providing a mechanism for districts to implement many of the other recommendations in this report.[10]

VI. Change the method of selection of Property Valuation Administrators (PVA's) from local election to appointment and employment by the state. Require PVAs, deputies and other employees to be under the Merit System.

The law implementing this recommendation should include a provision for training for the deputies as well as the PVAs. A salary schedule and budget for this office should be provided which will allow modern methods to be used in making property valuations.

PVAs qualified and employed by the state as Merit System employees should also be used for assessing property within all cities, for city taxes as well as county and state taxes. An equitable provision for cities and counties to bear some of the costs for this service should also be legislated with these changes.

FOOTNOTES

Chapter VII

1. Low Estimates from "The Feasibility and Revenue Effects of an Ad Valorem Tax on Unmined Coal" by C. Gilmore Dutton and Calvert R. Bratton, Kentucky Legislative Research Commission, Frankfort, October 31, 1983; high estimates from: "Taxing Unmined Minerals in Kentucky," Kentucky Fair Tax Coalition, October 1983.

2. The material in this section is adopted from Don M. Soule, "Kentucky Educational Finance: Methods and Problems", **Kentucky Economy Review and Perspective**, Vol. 7, No. 4, University of Kentucky, Lexington, Kentucky, December 1983.

3. Kern Alexander, **Equitable Financing of Public Schools**, a report to the Kentucky State Superintendent of Public Instruction, Frankfort, Kentucky, July 1983, pp. 16-32.

4. Ibid. p. 31.

5. National Education Association, **Rankings of the States**, 1984, July, 1984, Table H-4.

6. Ibid, Tables F-6, F-8, and F-10.

7. Ibid, Tables B-6 and H-11.

8. It would be necessary to:

   1) Repeal the 1976 law which limits taxation of the value of unmined minerals to the state, and the 1978 law which sets the tax rate at 1/10 of one cent per $100 valuation; 2) Allow the counties and school districts as well as the state to resume taxing unmined minerals in the same manner as other real property, with some provision for "circuit breakers" or tax relief for small holders who are not engaged in mining or for homeowners selling their property. Provide for state assessment of unmined minerals.

   The essential exemption of this wealth from taxation places a burden not only on the counties which contain these minerals but on other citizens in the state as well, since the state must provide more funding for schools in these counties to make up some of the difference.

   Recent studies have attempted to judge the amount of money lost. Estimates for the state loss vary from $18 million ($25.8 million if the state tax rate went back to 31.5 cents) to more than $50 million ($70 million at the 31.5 cent rate). The coal-bearing counties and school districts, which are among the poorest in the Commonwealth, are also suffering similar revenue losses. The school districts would receive at least $16.1 million more if the value of unmined minerals were included in their local property tax base. Initially there would be a considerable cost to the state for identifying properties containing unmined minerals and determining their fair cash value. The state's revenue would be only minimally increased until this exercise were completed, then these revenues would be realized. The counties and school districts would not bear the costs of assessment, under proposed legislation.

   According to the LRC report (f.n. 1), the estimated value of unmined coal in some representative counties is:

   Knott - 2 1/2 times as valuable as all other property
   Breathitt - 1 1/2 times as valuable as all other property
   Letcher - equal to the total value of all other property
   Martin - equal to the value of all other property
   Pike - 3/4 as valuable as all other property
   Harlan - 1/2 as valuable as all other property

   If the exemption for unmined minerals were removed, the revenues for schools in those counties, and in all the coal-containing counties, would be increased accordingly, with no increase in rates. This would save the state money that it has been sending to the coal districts in the form of power equalization, and, since the state revenues from those counties would similarly increase, it would also mean that their

share of the minimum foundation monies would have come more from the state's collection of local taxes from these same counties, rather than from the rest of the state or from the General Fund.

This tax would be "exported" to a large extent, since the ownership of unmined minerals is concentrated in out-of-state corporations and persons ("The Feasibility and Revenue Effects of an Ad Valorem Tax on Unmined Coal" by C. Gilmore Dutton and Calvert R. Bratton, Kentucky Legislative Research Commission, Frankfort, October 31, 1983).

9. This recommendation does not necessarily require an increase in funding—it merely seeks to allocate more educational funds to power equalization relative to the minimum foundation. Its purpose is to encourage school districts to increase local effort, and at the same time to distribute funds more equally among districts.

10. The committee is troubled by the possibility that the ability of the state to, in effect, mandate a local taxing effort could be subject to legal, including constitutional, challenges. Should this occur, the committee would be supportive of a consitutional amendment, if needed, or any other remedy that would allow the General Assembly to mandate minimum local efforts in education funding.

11. PVAs are currently employees of the state, paid by the state, but are elected locally. The office of property assessor is a sensitive one, since a fair administration of the property tax depends on assessments which are as accurate as possible. Subjecting the holder of this office to periodic election presents a potential for undue pressure on him or her to underassess certain properties. A Michigan study has shown that jurisdictions with elected assessors are far more likely systematically to underassess than jurisdictions with appointed assessors (David Lowery, "Public Choice When Services are Costs: The Divergent Case of Assessment Administration," **American Journal of Political Science,** 26 (February 1982). Numerous analyses have demonstrated that business property and the property of the poor are often significantly overassessed, while middle income homeowners are given tax breaks through artificially low property assessments (R. Engle, "Defacto Discrimination in Residential Assessments in Boston," **National Tax Journal** 28 (December 1975), and John Shannon, "The Property Tax: Reform or Relief," In **Property Tax Reform,** Ed.: G. Peterson (Washington, D.C.: The Urban Institute) 1973.

Other states are moving toward the appointment or employment, rather than election, of property assessors. The states of Alaska, Delaware, Georgia, Hawaii, Iowa, Kansas, Maryland, Minnesota, North Carolina, South Carolina, South Dakota, and Virginia have already moved in this direction. Connecticut, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Dakota, Rhode Island, and Wisconsin have some assessors who are appointed, but have elected ones as well.

In Maryland all assessment personnel are state employees of the State Department of Assessments and Taxation. The director, state supervisor, and supervisors for each of 24 local assessment offices are appointed; the remainder of the staff are

in their civil service. Maryland's experience has indicated these advantages: 1) improved uniformity of assessments, 2) elimination of the need for equalization, 3) better public information, 4) economies of scale, and 5) improved opportunities for professional training and development (Gene L. Burner, "State or Provincial Versus Local Government Control of Property Taxation: A Minority Report," **Assessment Digest** September/October 1984, pp. 2-5.

Appendix A
Indicators of Effective Schools

Subcommittee on Indicators of Effective Schools
with the assistance of
Dr. Dennis Nielsen
KISMA, Inc.
consultant to the subcommittee

There are two primary considerations in the determination of Indicators of Effective Schools. The first is comprised of the knowledge, skills, attitudes, preparedness, and understanding students possess compared to what is expected and in relation to their abilities. The second relates to schooling practices which have direct influence on the effectiveness of the schools and therefore the educational results.

STUDENT ACHIEVEMENT

Indicator I

Description

The goals of education for the Commonwealth of Kentucky set standards of achievement for all students. The ability of schools to assist students in meeting these goals is a primary indicator of school effectiveness.

Indicators of Student Achievement

We believe the schools should assist all students in achieving their potential in each of the educational goals for elementary and secondary education in the Commonwealth of Kentucky. These goals are:

- the knowledge and skills to function in a competitive technological society within a democracy—as a citizen, worker, and family member. These include:

  the ability to analyze critically, to synthesize, and to organize complex information.

  the ability to read, speak, write, and listen

  - with proficiency in the English language and
  - familiarity with a foreign language.

  knowledge and understanding of mathematics.

  knowledge of economic and political systems.

  an understanding of the physical world.

  an understanding of his/her heritage and place in the course of human civilizations.

  an understanding of foreign cultures.

  knowledge and understanding necessary to choose and function in the world of work.

- an understanding of self as well as his/her relationship to other people, institutions, and nations.

  the ability to maintain physical and mental health.

  the ability to use basic study skills, to learn independently, and to understand the importance of self-direction and learning throughout life.

  appreciation and knowledge of the arts.

  ability to recognize creativity as a basic human need.

Measures

Educational goals are the desired outcomes of the schools in the Commonwealth of Kentucky. All students should be measured on how well they are progressing toward meeting their potential in the educational content programs designed to meet each goal. These programs consist, at least in part, of the following:

- Literature
- Reading
- Mathematics
- Speaking
- Writing
- Listening
- Spelling
- Science
- Physical Health
- Mental Health
- History
- Geography
- Foreign Cultures
- Critical Reasoning
- Citizenship
- Economic Systems
- Arts
- Creativity
- Foreign Language
- Self-direction
- Study Skills including:
  - Library Research
  - Reference Skills
- Career Development
- Computer Literacy
- Political Systems

The measure of progress in these educational content structures should be tests and other devices which are given to children at all grade levels to measure student achievement in the goal areas appropriate for each grade level. (Special education children should be an exception to this requirement and be dealt with in an appropriate manner.)

Counseling should be available to students and parents to review the results and records and to plan together for the future education of the students (from remediation to accelerated programs). The results of the measures should also provide information to the students, schools, and community on the effectiveness of the schools.

In addition, all measures should:

1. report results to the community in an understandable way (such as a school system profile showing school effectiveness in each goal area)
2. contain items which cover high level cognitive skills
3. correlate highly with the curriculum of the schools
4. be updated on a yearly basis to avoid questions of teaching the test
5. provide information that can be fed into the curriculum and staff development program.

SCHOOL AND CLASSROOM ENVIRONMENTS

Indicator IIa

Description

The subcommittee believes the climate for learning in schools and classrooms determines the effectiveness of the schools.

Indicators of School Environment

The environment of the school and classroom can and should be managed for positive learning. The environmental elements of the school/classroom which provide for effective schools are:

- a safe, orderly, and academically focused environment for work.
- an atmosphere which encourages students' sense of belonging and responsibility
- an atmosphere which encourages teachers' participation in decisions and helps them feel responsible in the schools.
- a school atmosphere that welcomes parents.
- the atmosphere in which learning is important and academic expectations are clear.

- clear formal and informal rules of conduct and sensible but firm management of misconduct.
- the opportunity for students to gain self-confidence and to grow as people.
- open and constructive communication between students, teachers, and administrators.
- clear policies on homework and extracurricular activities.
- adequate services for student support—food, counseling, health, etc.
- a cooperative and open relationship with the community.

Measures

The measures of the Indicators of School and Classroom Environments are varied. Measures will involve perceptions of students, reports of teachers and principals, perceptions of the community, observations, and the written policies.

These might include standard surveys soliciting open responses from students to items requesting their assessment of:

- how strongly they feel they belong
- identifying symbols of identity and excellence
- identifying formal and informal rules
- their concept of themselves
- the opportunities for communication with school officials
- how responsible they feel
- what is expected behaviorally and academically

Reports of teachers and principals might include:

- school and classroom policies on factors influencing the climate of the school and classroom.
- program results which were implemented to promote self-concepts.
- evidence of a safe, orderly, and academically focused environment for work.
- the management processes when unacceptable behavior is encountered.

Standard surveys of parents on items might include:

- perceptions of school climate
- feeling of openness of the school staff
- perceptions about communication with the school.

Outside observers in schools and classrooms might gather information about:

- school and classroom content decisions
- time allocation decisions
- pacing decisions
- grouping decisions
- activity structures
- amount of engaged time
- classroom time management
- how classroom student success is monitored
- variances in method
- appropriateness of materials
- opportunities for communication.

Written policies should be gathered about:

- rules
- academic expectations.

Comments on Criteria

Criteria must be established which refer to:

- the presence of Indicators of School and Classroom Environment in the school and/or classroom—wherever appropriate.
- standards of implementation which indicate acceptable accomplishment of Indicators of School and Classroom Environment.

LEADERSHIP

Indicator IIb

Description

School leadership directly influences schools. The State Board of Education, state superintendent and staff, local school board, local superintendent, supporting administrators, principals, and unit leaders (department chairpersons, grade level chairpersons, etc.) all have responsibility for school effectiveness.

Indicators of Leadership

We believe that persons in school leadership positions have a primary responsibility to ensure that the goals of the education organization are maintained and met. They should ensure this responsibility by:

- making clear the goals of the educational organization.
- structuring plans for local policies that are consistent with federal, state, and local regulations for local school board approval.
- implementing state and local educational policies.
- understanding the curricular and instructional processes in designing and implementing educational programs.
- providing active recruitment of highly competent staff.
- involving teachers in decisions about curriculum, school climate, and continuing education.
- providing professional evaluation of teachers and administrators.
- providing continuing and in-service evaluation which meets teacher needs.
- assuming the responsibility for identifying ineffective work which should be improved and, if improvement is not accomplished, appropriately removing hose responsible.
- monitoring the implementation of plans.

- assessing school outcomes for maintaining and improving practices.
- informing the students, staff, parents, and community of school plans and results.
- correcting actions which are not consistent with the philosophy, policies, regulations of the educational organization.
- performing their duties in a manner which follows a philosophy of positive and enlightened supervision, management, and organizational practice.
- defining and implementing policies and regulations which support the provision of educational services to all children in the Commonwealth of Kentucky.

Measures

The measures of indicators in leadership consist mainly of gathering evidence that the indicators of leadership have or have not been performed to meet specified criteria. The exceptions are the measure of leadership practice, which we believe should consist of using standards of good leadership behavior to gather evidence from superordinates, peers, and subordinates on each leader; and the understanding of the curricular and instructional processes in designing and implementing educational programs, which we believe should be based on valid evidence of such understanding. Persons in each leadership position should have input into the development of the measures.

Comments on Criteria

Criterion/criteria need(s) to be established for each indicator of leadership. The purpose of the criterion/criteria is to provide a quality level of performance which can be interpreted as necessary for good leadership practice.

COMPREHENSIVE PLANNING

Indicator IIc

Description

The establishment of Comprehensive plans and planning cycles for schools has direct influence on school effectiveness.

Indicators of Comprehensive Planning

Comprehensive planning helps make clear the purposes for and strategies used in providing educational services. Elements of comprehensive planning should be present in the management of the school system, the individual schools, and the classroom. A comprehensive planning cycle includes both short-range and long-range plans with the following characteristics:

- ideas from the community on the goals of the local educational system.
- assessing the educational system needs.
- involving all school personnel, and teachers in particular, in the planning process.
- specific indicators which will ensure quality control of the intentions of the plans during implementation.
- specific measures of results.
- a reporting system for the participants, staff, and community on results.
- ways to use the resulting information for decisions on whether to maintain or to change plans.
- ways to use the resulting information for curriculum and staff development.

Measures

The measures of the Indicators of Comprehensive Planning consist of the production of comprehensive plans which follow guidelines for comprehensive planning and monitoring of the implementation of the plans.

Comments on Criteria

An acceptable degree of matching between the schools' plans and guidelines determines the acceptable completion of the plan.

In addition, criteria for monitoring the implementation of the plans should be developed and monitoring should be conducted to verify the meeting of completion dates and the identification of persons responsible. Changes in the comprehensive plan should be reported with justification for the changes.

When the criteria are met for comprehensive plan development and the implementaton of the plans is assured through monitoring, we believe comprehensive planning helps to achieve effective schools.

CAREER PLACEMENT AND FURTHER EDUCATION

Indicator III

Description

The effects of schooling extend beyond receiving a diploma. Whether students wish to enter employment or to pursue additional education, the opportunities for success in student choices should be enhanced by the schools.

Indicators of Career Placement and Further Education

Effective schools enhance the ability of students to meet societal expectations through their:

- graduating from high school.
- possessing skills useful in employment and knowing the available employment opportunities.
- being able, within individual limits, to enter the higher or post-secondary institution of their choice.
- having a positive attitude toward education.

Measures

The measures of these indicators require gathering information from students who leave the schools prior to their graduation and from students who graduate from high school.

It is recommended that in the year following the students' class graduation and again within not more than 5 years following the students' class graduation followup information be gathered on:

- present employment/educational status.
- present employment/educational position/location.
- present attitude toward their public school education and how it prepared them for societal demands.

Comments on Criteria

Criteria must be established to define the extent to which the Indicator of Career Placement must be present in order to measure the indicator's efficacy in helping to improve the effectiveness of the schools.

COMMUNITY ENVIRONMENT

Indicator IV

Description

The school exists within the community and its quality and characteristics are tied to those of the community. The attitudes and values of the community about education and those of persons within the educational system toward the community directly influence the effectiveness of the schools.

Indicators of Community Environment

We believe the community conditions conducive to school effectiveness are:

- local tax support of education.
- evidence that educational excellence is a high community priority.
- the involvement of business, local government, labor, community organizations, and other groups in constructive support of the schools.
- service as volunteers in the schools.
- participation in advisory councils or other efforts to engage citizens in the schools.
- providing exemplary role models for good citizenship.
- participation in school/community organizations and activities.
- encouragement for keeping students in school until graduation.
- commitment and participation of school personnel in the community.

Measures

The measures of Community Environment are evidence gathered about the community. Most measures will solicit information

through the survey format or measure the extent of participation. Other information on climate might include, for example:

- local crime statistics
- extent of voter participation
- equity of opportunity
- nondiscriminatory regulations
- community appearance
- community economic and employment characteristics

Comments on Criteria

Criteria must be established determining the extent to which the Indicator of Community Environment must be present to measure the indicator's helpfulness in making schools effective.

5-POINT BASE

The Indicators of Effective Schools Subcommittee was asked to propose recommendations on indicators to be used to determine school effectiveness.

It is our belief that conclusions related to any indicators of effective schools are directly dependent upon one or more of the following:

1) A consensus of the Purposes/Goals of education in the Commonwealth of Kentucky.

2) The assumptions/beliefs/facts held on good educational practice.

3) The validity and reliability of the measures used to determine outcomes of school effectiveness.

4) The policies and procedures used to gather, interpret, and report resultant information.

5) Local schools' planning and evaluation processes.

POINT 1

Educational Goals for Students

Goals state the desired outcomes of the schools in the Commonwealth of Kentucky and should be used as governing guides for the education of students. Since these goals define the educational achievements students must possess, they directly influence the indicators of effective schools in the Commonwealth of Kentucky. We have recommended goals for Kentucky schools earlier in this report.

POINT 2

Assumptions/Beliefs/Facts

What one believes about good eductional practice has a direct bearing on the perception of what is and what is not an effective school. In some cases, these beliefs are supported by research and thus become factual; in others, they are assumed to hold true. The subcommittee feels it is important in the evaluation of our recommendations that these beliefs be presented.

WE BELIEVE . . .

- that **all** educational goals for students ought to be included in the determination of effective schools.
- that the basis for the effectivenss of schools resides predominately in the educational outcomes of students.
- that reporting student achievement as a measure of school effectiveness must include value-added considerations, such as ability, aptitude, or intelligence measures.
- that school leadership has direct influence on the effectiveness of schools.
- that the interschool environmental climate for learning has direct influence on the effectiveness of schools.
- that the educational process (elements of what is taught and how it is taught) has direct influence on the effectiveness of schools.

- that the local community in which schools reside has direct influence on the effectiveness of schools in that school district.
- that state policies and procedures have direct influence on and responsibility for the effectiveness of those schools.

POINT 3

Validity & Reliability of Measures

The selection of measures for the gathering of objective data on indicators of school effectiveness is crucial. The selected measures must be objectively scored, fair, valid, and reliable. Additionally, ease of administration, simplicity of analysis, and cost are factors which need to be considered so as not to place undue burden on the local schools or the Commonwealth of Kentucky.

OBJECTIVE SCORING	For a measure to be objectively scored, results must be the same no matter who is given the task of scoring the measure.
FAIR	For a measure to be fair, it must be directly related to its purpose and cannot discriminate on factors unrelated to this purpose.
VALID	For a measure to be valid, it must measure what it purports to measure. There are many forms of validity, such as content validity, construct validity, predictive validity, concurrent validity, and face validity, which must be considered in measure selection.
RELIABLE	For a measure to be reliable, it must consistently place students in the same relative position to other students if the measure is used repeatedly. In other words, the results from the first administration of the measure must closely approximate the results of the same measure administered repeatedly.

POINT 4

Policies & Procedures

Standard policies and procedures for the measure, collection, analysis, and reporting of the indicators of school effectiveness must be determined, monitored, and enforced for fair and consistent conclusions among the schools of the Commonwealth of Kentucky.

We believe the State Board of Education should set policies and procedures on the measure, collection, analysis, and reporting of the indicators of school effectivensss. In so doing, we recommend the State Board of Education consider the following:

- that the measures used for indicating school effectiveness be the same from one school district to another.
- that the measure of any indicator take place in all schools at a set time or within a short time interval.
- that results be sensitive to the number of instructional days provided by each school.
- that a procedure be established for out-of-district monitoring of the measurement process.
- that a community reporting system be approved for sending information back to the local district and community on the results.
- that the reporting system present the effectiveness results through some criterion other than the ranking of school districts. (If a school is effective, it is; if it isn't, it isn't. If a criterion for effectiveness is established, one approaching ineffectiveness has little to do with one that is way above the criterion for being effective.)

POINT 5

Comprehensive Planning

Without a Comprehensive Planning Process in school districts, the determination of causes for effectiveness or ineffectiveness can be based only on guessing what has taken place. Each element from Com-

munity Input on local goals, to planning and developing the instructional program, to implementing the program, to assessing the results, to utilizing the program results for maintenance and/or improvement, to reporting should be present in each and every school district.

This subcommittee believes that, in order to increase the potential for effective schools in the Commonwealth of Kentucky, the following recommendations must be followed.

WE RECOMMEND . . .

- that all school districts in the Commonwealth of Kentucky establish Comprehensive Planning as standard operating procedure.
- that school leaders be helped in their planning processes.
- that research into effective school indicators and their influence on school quality be increased significantly.
- that change in effective school indicators be dependent upon research results.

Appendix B
Estimates of Kentucky's Economy in the 1990s

Prepared by:

Committee on Kentucky's Economy
Kentucky Economic Development Corporation

Prepared for:

The Prichard Committee for Academic Excellence

Introduction

On July 12, 1984, Philip M. Lanier of The Prichard Committee for Academic Excellence asked the Executive Committee of the Kentucky Economic Development Corporation (KEDC) for assistance in estimating the likely nature of Kentucky's economy a decade hence—in the mid-1990s. The purpose of this estimate, according to Mr. Lanier, is to provide the Prichard Committee with a basis for forecasting Kentucky's occupational skill needs.

KEDC's Chairman and President, William T. Young, appointed a special committee of representatives of KEDC Board-member firms to address this request for assistance. He asked Ted R. Broida, KEDC's Executive Vice President, to serve as the committee's chairman. Dr. Lawrence K. Lynch served as the committee's staff economist and demographer, and Helen R. Burg served as research assistant. The other members of the committee are:

John B. Clarke
Manager of Public Affairs
General Electric Co.

John W. Dansby
Vice President-Corporate Planning
Ashland Oil, Inc.

Alan L. Fowler
Manager, Industrial Development
Seaboard System Railroad

Richard Schweinhart
Controller
Humana Inc.

Thomas R. Seigle
Vice President-Planning and Treasurer
Commonwealth Life Insurance Co.

The forecasts and estimates made in this report represent the current best judgment of the members of the committee, and do not

necessarily represent the views of their employers nor those of the KEDC. The work was performed during a four-week period in August, 1984. Despite the limited time available, the members of the committee believe that having additional time would not materially alter their report.

The committee members would be pleased to consider requests for additional information or estimates, particularly if greater precision might be required for the Prichard Committee's purposes.

TRENDS IN KENTUCKY'S POPULATION AND ECONOMY

The past decade marked a transition in the Kentucky economy toward service production and away from goods production. Employment growth exceeded population growth, but per capita income just barely kept pace with inflation, as low-wage service industry jobs replaced high-wage manufacturing jobs.

The following paragraphs discuss Kentucky's populaton, employment, and personal income. The time periods compared may vary slightly due to the limitations of data availability, but all encompass roughly the past decade.

POPULATION

Total population in Kentucky grew by 13.7 percent from 1970 to 1980, as shown in Figure 1 and Appendix Table A-1. The growth was most rapid in the working-age population (ages 20-64), which grew by 23.7 percent, due in part to the maturing of the baby-boom people born in the decade after World War II, and in part to net in-migration of working-age people. The elderly population (age 65 and older) also grew rapidly, by 21.3 percent, and comprised 11.2 percent of Kentucky's 1980 population. The slowest growing age groups were the 5-19 year-olds, at 3.0 percent, and the 0-4 year-olds, at 4.7 percent. These data reflect the very low birth rates of the 1965-75 period, and begin to show the impact of the higher birth rates of recent years—as the baby-boom people are beginning to have children of their own.

The University of Louisville's Urban Studies Center (USC) is the agency which officially cooperates with the U.S. Bureau of the Census in making population estimates and projections for Kentucky. Thus the USC's most recent population projections are included in Figure 1 and Table A-1.

The projections show a diminution in the overall population growth rate in Kentucky from 13.7 percent from 1970-80 to 11.0 percent for 1980-90, and to 10.9 percent for 1990-2000. Growth rates are expected to decline in every age group except 65 and older, where the growth is expected to accelerate. Growth in the elderly population will be rapid because of the aging of the 20-64 year-olds, many of whom will reach age 65 by the year 2000.

Working-Age Population by Race and Sex

Among the total population, blacks increased at about the same rate as whites, but other minorities grew rapidly. Blacks still comprised only 6.5 percent of the 20-64 age group in 1980. The percentage increases of other minorities exceeded that for whites in the working-age population from 1970 to 1980, as shown in Appendix Table A-2. These other minorities, however, comprised less than one percent of the working age population in 1980.

Assuming that relative growth rates among racial groups in the working age populaton continued, blacks will make up 6.7 percent of the group, and other minorities 1.2 percent by the year 2000. Thus, the large majority of the working age population in Kentucky will continue to be whites in the forseeable future. Nevertheless, blacks and other minorities aged 20-64 will increase from 145,000 persons in 1980 to 204,800 in the year 2000.

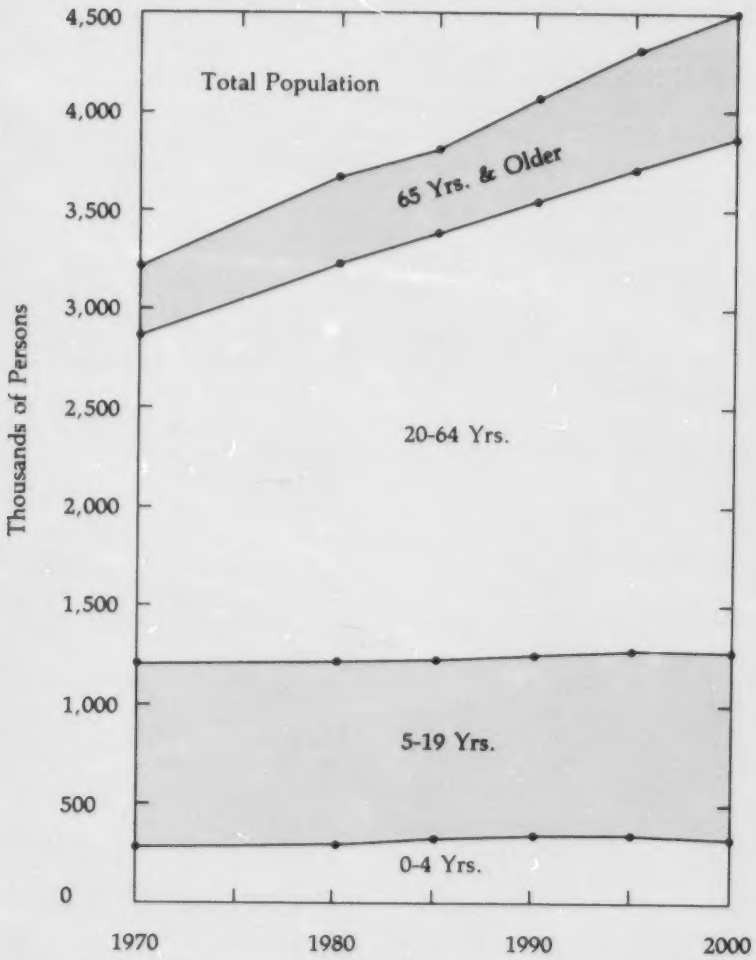
Females comprise the majority of Kentucky's population, with 51.1 percent in 1980. From 1970 to 1980, the growth of females exceeded the growth of males in the 20-64 and 65 and older age groups, but fell short in the younger age groups. The female majority will diminish by the year 2000, as the USC projects the growth of working-age and elderly males to far exceed the growth of working-age and elderly females. By 2000 females are projected to be 50.0 percent of the population. Females dominated the 65 and older age group in 1980, with 59.1 percent, but are expected to comprise only 57.8 percent of this age group by 2000.

Household Composition

Perhaps the most striking information in the 1980 census was the extremely rapid growth of unrelated individuals (singles) compared to families, and the sharp increase in female-headed families. Table A-3 presents the data, by race, for 1970 and 1980, with projections to 2000. Figure 2 illustrates the projected growth.

Unrelated individuals increased by 72.2 percent in Kentucky from 1970 to 1980, and the growth was more rapid among whites (74.5 percent) than blacks (44.4 percent). Other minorities experienced rapid

Figure 1
KENTUCKY'S POPULATION BY AGE GROUP
(Actual 1970, 1980 and Projected 1985-2000)



Source: Table A-1

growth, but there were still only 1,600 unrelated individuals among other minorities in 1980. Female-headed households grew by 46.6 percent in Kentucky from 1970 to 1980, and the growth was more rapid among blacks (60.7 percent) than whites (43.3 percent). Again other minorities had high growth rates, but are a very small number.

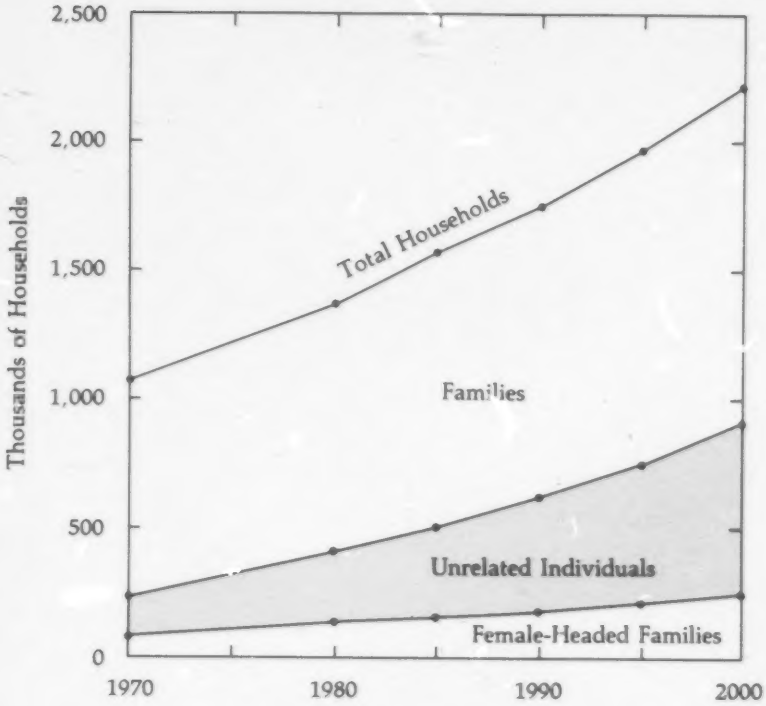
Part of the growth of unrelated individuals is due to the aging of the population: elderly people are more likely to be widowed (and hence live alone) than younger people. But much of the growth in unrelated individuals, and nearly all the growth in female-headed families, is due to changing lifestyles. Marriage is becoming less popular, even for people who want children, and divorce rates have grown. If these trends continue, traditional families will be in the minority by early in the next century.

EMPLOYMENT

Total nonagricultural employment in Kentucky grew by 17.8 percent from 1972 to 1982, as reported in Table 1. This growth exceeded population growth (13.7 percent from 1970 to 1980), and approximately matched the rate of U.S. employment growth. Employment growth did not exceed populaton growth in the 20-64 year age group, however (23.7 percent, from Table A-1). It should be noted that the employment data in Table 1 exclude proprietors, the self-employed, unpaid family workers, farm workers, and domestic workers in households. The self-employed group probably experienced rapid growth in the 1972-82 period, so the overall employment growth rate in Table 1 is understated. Nevertheless, the growth in jobs did not match the growth in the labor force over the period, and Kentucky's unemployment rate rose from 5.9 percent in 1972 to 10.6 percent in 1982*.

*Kentucky Department of Economic Development, **Kentucky Economic Statistics**, Frankfort, 1984, p. 5.

Figure 2
HOUSEHOLD COMPOSITION IN KENTUCKY
(Actual 1970, 1980, and Projected 1985-2000)



Source: Table A-3

Table 1
Nonagricultural Employment by Industry, Kentucky, 1972 and 1982

(Thousands of Employees)

	Employment 1972	Percent of Total	Employment 1982	Percent of Total	Percent Change 1972-82
TOTAL NONAGRICULTURAL	988.3	100.0	1,164.4	100.0	17.8
MINING	31.4	3.2	54.1	4.6	72.3
Coal Mining	26.4	2.7	48.2	4.1	82.6
CONSTRUCTION	55.7	5.6	49.5	4.3	-11.1
MANUFACTURING	268.3	27.1	246.8	21.2	- 8.0
Durable	150.9	15.3	132.1	11.3	-12.5
Nondurable	117.4	11.9	114.7	9.9	- 2.3
TRANSPORTATION & PUBLIC UTILITIES	59.2	6.0	65.8	5.7	11.1
Transportation	35.4	3.6	35.6	3.1	0.6
Communication	12.6	1.3	16.1	1.4	27.8
Electric, Gas and Sanitary Services	11.2	1.1	14.1	1.2	25.9
WHOLESALE TRADE	49.5	5.0	61.4	5.3	24.0
RETAIL TRADE	150.6	15.2	198.3	17.0	31.7
FINANCE, INSURANCE AND REAL ESTATE	36.7	3.7	51.7	4.4	40.9
SERVICES	148.4	15.0	215.8	18.5	45.4
GOVERNMENT	188.5	19.1	221.0	19.0	17.2
Federal Government	39.3	4.0	39.5	3.4	0.5
State & Local Government	149.1	15.1	181.5	15.6	21.7
State & Local Education	88.1	8.9	103.0	8.8	16.9

Note: Detail may not add to totals due to rounding.

Source: Bureau of Labor Statistics, U.S. Department of Labor, **Employment, Hours, and Earnings, States and Areas, 1939-82**, Volume 1, Bulletin 1370-17, Washington, D.C., January, 1984.

The fastest growing Kentucky industries from 1972-82 were coal mining (82.6 percent); services (45.4 percent); finance, insurance, and real estate (40.9 percent); and retail trade (31.7 percent). Construction and manufacturing experienced employment declines (of 11.1 percent and 8.0 percent, respectively). Other slow-growing industries were federal government (0.5 percent) and transportation (0.6 percent). These rates will not necessarily apply to the next decade, as will be discussed in the following section.

Growth for major industry groups is illustrated in Figure 3. If mining, construction, manufacturing and transportation and public utilities are classified as goods-producing industries, and the others as service-producing industries, then it is apparent from Figure 3 that virtually all Kentucky's employment growth from 1972-82 occurred in service-producing industries.

Kentucky's most important industries, measured by their percentage of total nonagricultural employment in 1982, are manufacturing (21.2 percent of total employment), government (19.0 percent), services (18.5 percent), and retail trade (17.0 percent). Of this group, all increased their share of total employment from 1972 to 1982 except government (which retained its share) and manufacturing (where the share fell from 27.1 percent in 1972 to 21.2 percent in 1982).

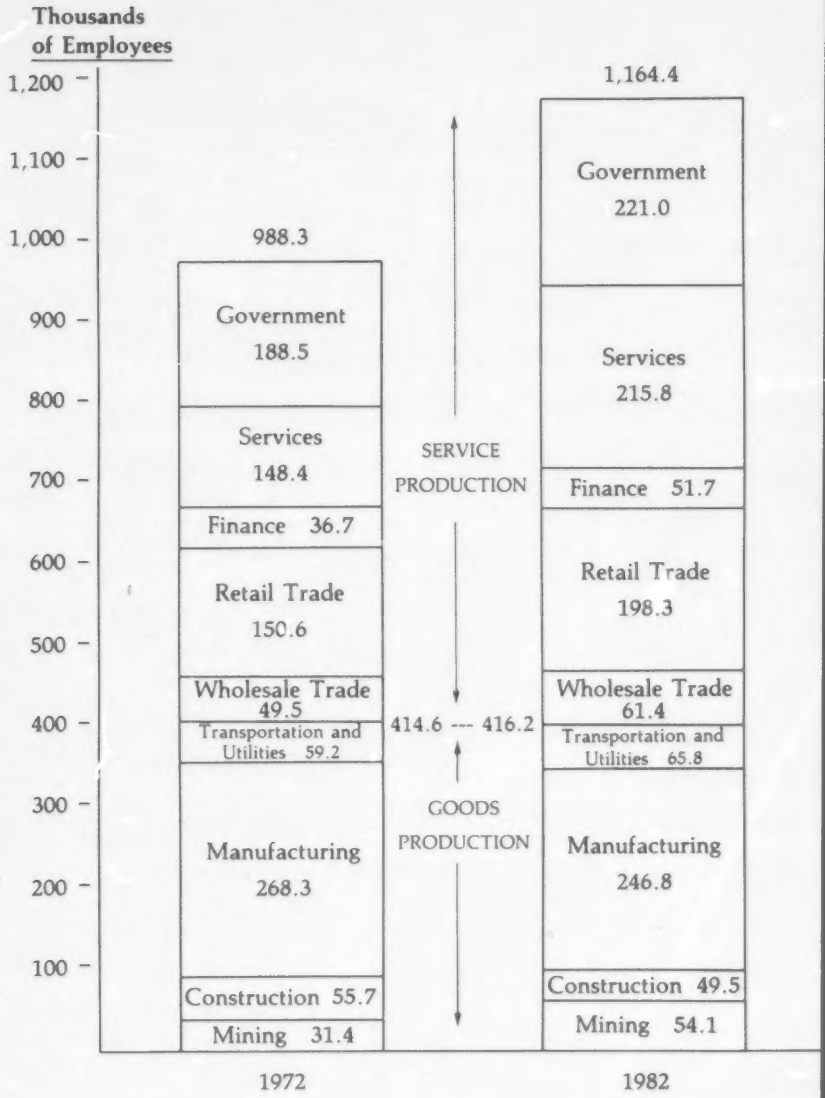
Because manufacturing is still Kentucky's largest employer, it is useful to examine specific industries within the manufacturing sector. Table 2 reports employment by industry within manufacturing for 1972 and 1982. Eight of 19 manufacturing industries experienced employment growth over the decade, and together they represented 44.4 percent of manufacturing employment in 1982. The largest industry was machinery, except electrical, which employed 13.3 percent of manufacturing workers in 1982, and experienced employment growth of 12.7 percent from 1972 to 1982. The fastest-growing were petroleum and coal products (which grew by 56.0 percent but still employs only 3,900 workers), rubber and miscellaneous plastic products (32.0 percent growth), and printing and publishing (27.4 percent). Durable goods industries declined in employment more than nondurable goods industries, with the worst declines experienced by furniture, electric and electronic equipment, lumber and fabricated metals. Among nondurable goods industries, leather, tobacco, apparel, and food (especially distilled liquors) experienced the worst declines.

PERSONAL INCOME

Total personal income in Kentucky grew at an average annual rate of 9.4 percent from 1974 to 1983, as shown in Table A-4. Per capita income grew at an annual rate of 8.1 percent, which just matched the growth in the Consumer Price Index (CPI)*. Thus the average Kentuckian only kept pace with inflation over the past decade, experiencing no increase in real income. Part of the explanation for this phenomenon is that the rate of job creation did not keep pace with the rate of labor force expansion; and part is that the new jobs which were created tended to be in the (relatively) low-wage service sector rather than in high-wage manufacturing.

*Bureau of Labor Statistics, U.S. Department of Labor, **Monthly Labor Review**, June, 1984, p. 81.

Figure 3:
Nonagricultural Employment, by Industry, Kentucky, 1972 and 1982



Source: Table 1

Table 2
Manufacturing Employment by Industry, Kentucky, 1972 and 1982
(Thousands of Employees)

Manufacturing Industry	Employment 1972	Percent of Total	Employment 1982	Percent of Total	Percent Change 1972-82
TOTAL MANUFACTURING	268.3	100.0	246.8	100.0	- 8.0
DURABLE GOODS	150.9	56.2	132.1	53.5	-12.5
Lumber and Wood Products	10.8	4.0	8.0	3.2	-25.9
Furniture and Fixtures	6.3	2.3	4.1	1.7	-34.9
Stone, Clay, and Glass	9.7	3.6	7.7	3.1	-20.6
Primary Metals	15.4	5.7	16.4	6.6	6.5
Fabricated Metals	19.8	7.4	15.5	6.3	-21.7
Machinery, Except Electrical	29.1	10.8	32.8	13.3	12.7
Electric, Electronic Equipment	41.8	15.6	29.3	11.9	-29.9
Transportation Equipment	10.7	4.0	11.2	4.5	4.7
Instruments & Miscellaneous	7.3	2.7	7.1	2.9	- 2.7
NONDURABLE GOODS	117.4	43.8	114.7	46.5	- 2.3
Food and Kindred	23.2	8.6	20.7	8.4	-10.8
Distilled Liquors	6.4	2.3	5.0	2.0	-21.9
Tobacco Manufacturers	12.4	4.6	9.7	3.9	-21.7
Textile Mill Products	6.3	2.3	6.1	2.5	- 3.2
Apparel and Allied	30.5	11.4	25.6	10.4	-16.1
Paper and Allied	6.3	2.3	7.1	2.9	12.7
Printing and Publishing	11.3	4.2	14.4	5.8	27.4
Chemicals and Allied	12.3	4.6	14.1	5.7	14.6
Petroleum and Coal Products	2.5	0.9	3.9	1.6	56.0
Rubber and Misc. Plastics	7.5	2.8	9.9	4.0	32.0
Leather and Leather Products	5.1	1.9	3.3	1.3	35.3

Source: Bureau of Labor Statistics, U.S. Department of Labor, **Employment, Hours and Earnings, States and Areas, 1939-82,** Volume 1, Bulletin 1370-17, Washington, D.C., January, 1984.

Wages and salaries, the largest component of personal income, grew at an annual rate of only 8.5 percent between 1974 and 1983, reducing its share of total personal income from 61.6 percent to 57.2 percent. Other labor income—fringe benefits paid by employers—grew much faster and increased its relative share of total personal income. Due in part to high marginal tax rates, employees are taking larger shares of their total compensation in the form of nontaxed fringe benefits.

Proprietors' income—the profits of unincorporated businesses—grew very slowly from 1974-83; farm proprietors' income actually declined. The latter tends to fluctuate sharply from year-to-year, however.

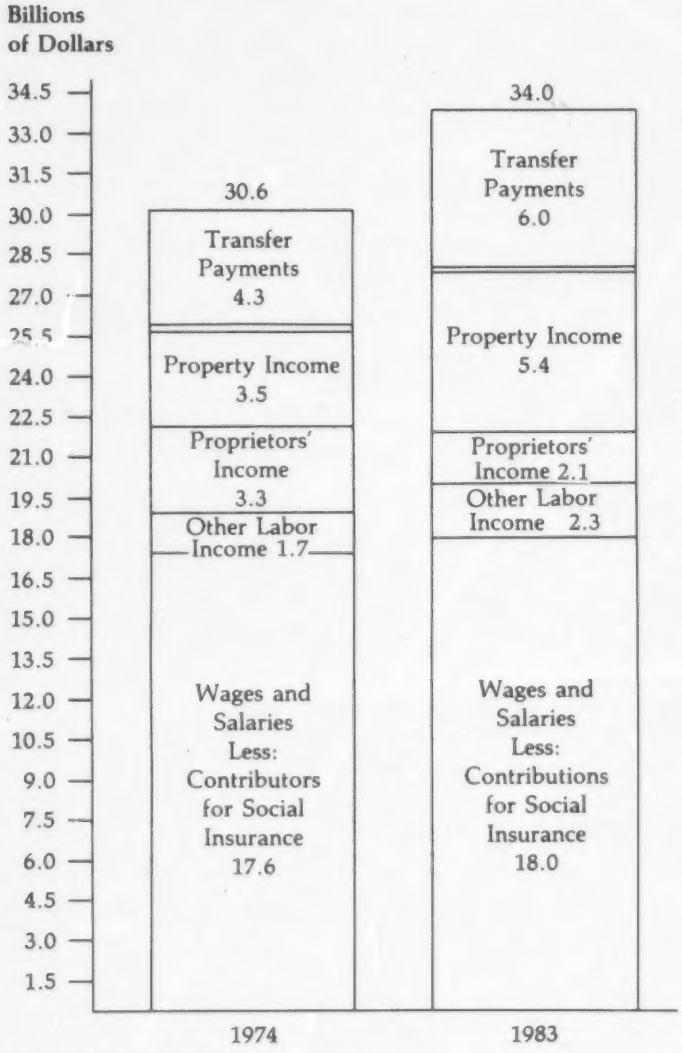
Property income—income from dividends, interest, and rent—was the fastest-growing component of personal income over the past decade. This was due in large measure to the great increase in interest rates over the period, resulting from rapid inflation and deregulation of the financial industry.

Transfer payments—social security benefits, unemployment insurance benefits, veterans' benefits, food stamps, aid to families with dependent children, and other welfare payments—grew at an average annual rate of 12.1 percent from 1974-83, and now represent 17.5 percent of total personal income. The growth in transfer payments was due in part to the aging of the population, in part to the effects of rapid inflation on indexed benefits, in part to the increase in unemployment, and in part to the unchecked growth in so-called "entitlement" programs (i.e., Medicaid and Medicare).

The residence adjustment is a net figure measuring income brought in by workers who live in Kentucky but work in another state less income taken out by residents of other states who work in Kentucky. The net figure is very small for Kentucky, less than one percent of total personal income.

Figure 4 depicts the growth of personal income by major source, with the 1974 data adjusted to constant 1983 dollars. Thus, all changes shown in Figure 4 represent "real" growth. It is clear that the major income sources experiencing real growth from 1974-82 were property income and transfer payments.

Figure 4
KENTUCKY PERSONAL INCOME BY MAJOR SOURCE
1974 and 1982
(In Constant 1983 Dollars)



Source: Table A-4

ESTIMATES OF KENTUCKY'S ECONOMY

The trends in employment and income in Kentucky established during the past decade are likely to be continued in the decade ahead. These trends actually mirror the trends occurring in the nation—a shift away from a manufacturing economy to a service economy. This shift was illustrated in the 1972 vs. 1982 comparative chart of employment shown in Figure 3. In that Figure the industries in Kentucky were grouped into "goods production" and "service production", with most growth shown in the latter group.

The components of "goods production" are: manufacturing; transportation and utilities; construction and mining. As shown in Table 1, manufacturing employment declined by 8 percent during the 1972-82 period to a level that represents 21.2 percent of Kentucky's total nonagricultural employment. Despite this decline, which is expected to continue, manufacturing still represents the single most important economic activity in Kentucky.

Kentucky will do well in the decade ahead to retain the current level of manufacturing jobs. The national trend towards lower manufacturing employment is expected to continue, and this will be felt in this state. Furthermore, many of Kentucky's leading manufacturing firms are investing heavily in machinery and processes that will increase the level of automation. Thus, it is expected that manufacturing employment will increase because of expansion of existing firms and the overall health of the nation's economy coupled with the attraction of new firms because of Kentucky's natural advantages (e.g., location, transportation system, land and water resources), but will decline because of increased automation and shifts away from traditional industries (e.g., tobacco processing and manufacturing, distilling).

The net effect will be a stable to slightly decreased number of manufacturing employees during the decade ahead. However, vigorous state and local economic development programs could produce a net gain in manufacturing employment. (The job requirements for manufacturing employees will change significantly, as will be discussed in the next section.)

Employment levels in transportation and utilities remained fairly stable during the past decade, and are likely to continue in the same manner in the decade ahead. These employment levels will be governed more by the shifts in the national economy than on perturbations within the state. Some increase in transportation-related employment will un-

doubtedly result from Kentucky's growing role as a distribution center.

Construction employment also reflects the condition of the nation's economy, interest rates, and general business conditions. Planned investments by Kentucky's major firms lead to the possibility of a slight reversal of the past decade's decline in construction employment, but this change is not expected to be major.

Mining employment, particularly coal mining, will also reflect the demand for energy which, in turn, is tied to national and international economic conditions. Domestic use of coal has not grown as rapidly as was expected immediately after the "energy crisis" of the early '70's, and the export market has virtually disappeared. U.S. (and Kentucky) coal is presently uncompetitive in world markets because of high mining costs, high transportation costs, and the strength of the dollar. Furthermore, regulatory uncertainties (e.g., "acid rain") cloud coal's future. For these reasons, estimating future mining employment is difficult. It seems reasonable that mining employment will stay level or perhaps increase slightly with an upturn in the economy during the next decade.

Other energy-related employment is associated with oil and gas exploration and production. These activities in Kentucky are relatively small, although the decontrol of natural gas has provided incentives for gas drilling in Appalachia. Currently, demand declines and rigidities in natural gas pricing structures have caused gas production to be shut-in and reduced drilling incentives. It is expected that these conditions will moderate in the next 1-2 years, resulting in modest increases in employment of geologists, petroleum engineers, surveyors, and drillers.

With regard to petroleum refining, Kentucky's only refinery is Ashland Oil's Catlettsburg complex. That firm recently completed an expansion and upgrading of their facilities; consequently, it is doubtful that additional refinery employment will result from new refineries or from further expansion of the existing one.

The components of "service production" are: wholesale and retail trade; "services"; government; and finance. It is likely that changes in employment levels in wholesale and retail trade will occur according to overall economic conditions. Overlaying the economic conditions will be a steady increase in the state's population, as shown in Figure 1. It is not unreasonable to expect that the long-term growth in employment in wholesale and retail trade will be in the range of 1-2 percent per year. Such employment estimates could be affected by state tax laws (e.g., inventory tax, sales tax).

Changing concepts in retail employment will also affect the totals. After a long decline in "filling station" employment, for example, it

appears that the linking of petroleum marketing with convenience shopping will lead to increased employment in station/convenience stores.

The "finance" sector of the state's economy includes financial institutions (e.g., banks, savings & loans), insurance, and real estate. From Table 1, this category experienced a 40 percent gain during the 1972-82 period. The biggest gains occurred in banks, but all segments participated in the growth. The banking employment picture is clouded by the recent changes in the state's banking laws permitting multi-bank holding companies, the rise of interstate banking, and the expansion of non-banking firms into financial services. It is more likely that this churning in the industry will result in a redistribution of employment rather than in further expansion. As a result, it is estimated that employment levels in "finance" will increase at the rate of the state's population growth.

An exception to this estimate is likely to occur in the insurance industry in which significant employment growth in information processing and sales force staffs is expected. Growth rates for these two occupational categories are estimated to be 6-7 percent per year, with a 5 percent per year increase expected for sales management. However, growth in these categories will be offset to a significant extent by declines in policyholder services and underwriting staffs.

Government employment, particularly state and local government, represents a significant and rapidly-growing segment of the state's employment. The austerity policies of the previous state administration and the budget limitations of the present administration have slowed the growth of state employment; however, there are weaker restraints on local governments. It is expected that government employment (federal, state, and local) in Kentucky will increase at a rate of about 1 1/2 percent per year. The current enthusiasm for improving education in Kentucky might lead to additional teaching jobs; nevertheless, it is hazardous to estimate the levels until additional education funds have been appropriated.

The "services" category within the "service production" group represents a wide spectrum of activities—ranging from highly skilled to unskilled employment. The tourism and travel industry is one of the state's largest components of the service sector. In 1982 there were approximately 100,000 persons employed in this industry—about half in hotels/motels, and another one-fourth in resturants. This total amounts to about 30-35 percent of Kentucky's service jobs. (Note that in Table 1 restaurant employment is included in the "retail trade" figure, so that the total service jobs would be on the order of 300,000.) The

tourism and travel industry is affected by national and regional economic conditions and by seasonal factors. Nevertheless, this is a strong segment of Kentucky's economy that is expected to grow at least as fast as the state's population.

Another significant component of the service sector is the health care industry. Currently, there are about 53,000 persons employed in or affiliated with Kentucky's hospitals. Of these about 10,000 are RN's and 39,000 are housekeepers, maintenance and janitorial workers, and supporting staff. This hospital industry employment is expected to grow at about the same rate as the population. This growth might be reduced somewhat if hospitals continue to experience declining "utiliation" (occupancy rates).

The health care industry also includes nursing homes, diagnostic laboratories, health maintenance organizations, outpatient clinics, mental health centers, and home health services. Unfortunately, these components of Kentucky's health care industry are only loosely organized, so it is difficult to obtain even current employment figures. If these "other" services represent as much as half of the hospital-related employment, the total health care employment represents about 25 percent of total service sector employment. Substantial growth in health care jobs is not expected in the next decade, but there will be a redistributions of jobs by type of institution.

Fast food employment has grown rapidly in the nation and in Kentucky. This trend is expected to continue during the next decade. Because most of the jobs associated with this industry are unskilled, no estimates of total employment were made.

KENTUCKY'S CHANGING SKILLS REQUIREMENTS

Although the charge to the committee did not specifically include estimating future job skills requirements, there are certain observations that stemmed from the estimates of Kentucky's economy in the 1990's.

In the manufacturing sector, substantial investments in automation machinery and processes (especially in "high-tech" or programmable automation firms) will increase the demand for engineers, computer scientists, technicians and mechanics, and repairers and installers. In

the "heavy" (i.e., smokestack) industries, demand for craftworkers, operatives and laborers will fall. The long-term outlook for selected programmable automation occupations is shown below:

U.S. 1980 Employment for All Manufacturing Industries, Selected PA-Sensitive Occupations

	Number	Percent	Long-term direction of change
Engineers	579,677	2.85	+
Electrical	173,647	0.85	+
Industrial	71,442	0.35	+
Mechanical	122,238	0.60	+
Engineering and science technicians	439,852	2.16	+
Drafters	116,423	0.57	—
NC tool programers	9,371	0.05	—
Computer programers	58,622	0.29	—
Computer systems analysis	42,404	0.21	+
Adult education teachers	5,165	0.03	+
Managers, officials, and proprietors	1,195,743	5.87	?
Clerical workers	2,297,379	11.28	—
Production clerks	139,947	0.69	—
Craft and related workers	3,768,395	18.51	—
Electricians	126,001	0.62	+
Maintenance mechanics and repairers	391,524	1.92	+
Machinists, tool and die makers	356,435	1.75	—
Inspectros and testers	538,275	2.64	—
Operatives	8,845,318	43.44	—
Assemblers	1,661,150	8.16	—
Metalworking operatives	1,470,169	7.22	—
Welders and flamecutters	400,629	1.97	—
Production painters	106,178	0.52	—
Industrial truck operators	269,105	1.32	—
Nonfarm laborers	1,576,576	7.74	—
Helpers, trades	100,752	0.49	—
Stockhandlers, order fillers	104,208	0.51	—
Work distributors	16,895	0.08	—
Conveyor operators	31,469	0.15	—

NOTE: Data pertain to wage and salary workers.

SOURCE: Bureau of Labor Statistics, "Employment of Industry and Occupation, 1980 and Projected 1990 Alternatives," unpublished data.

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Clerical employment can be expected to fall as a result of increased office automation. Certain clerical positions will need to be upgraded—such as word-processor operator instead of typist.

Demand for skilled upper-level managers and technical, sales, and service personnel will increase at the time when the need for certain middle-management and blue collar positions will decrease.

It is imperative that Kentucky's educational system provide persons with good backgrounds in the basic skills of reading, writing, mathematics, use of computers, and good work and study habits. It is more important for a person to be adaptable to a variety of occupations than it is to be trained for a specific one. There is no comfort in being an expert welder, for example, if one's job has been taken by a robot.

Job requirements will change in favor of higher skills in manufacturing, health care, and oil and gas exploraton. Low-skill occupatons will continue to be in demand for employees of fast food firms and for custodial, janitorial, and building maintenance workers.

Manufacturing is expected to be Kentucky's leading economic activity for the forseeable future. Nevertheless, Kentucky is likely to follow the nation's trend of declining employment in manufacturing while increasing employment in various service-sector industries—notably tourism and travel, financial services, and fast foods.

The need for training/retraining is apparent when one considers that 85-90 percent of the 1990 work force will consist of workers who are currently on the job, and that 70-75 percent of this work force will constitute the year 2000 work force. Greater emphasis should be given to blue collar career planning. Programs of retraining (or "retreading") adults for new jobs with either their present or new employers must be emphasized. Youths entering the work force might require retraining two or three times during their working careers.

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Table A-1

Population by Age and Sex, Kentucky, 1970, 1980 and Projected 1985-2000

(Thousands of Persons)

Age and Sex	1970	Percent of Total	1980	Percent of Total	Percent Change 1970-80	1985	1990	1995	2000	Percent of Total	Percent Change 1980-2000
TOTAL POPULATION	3,218.7	100.0	3,660.8	100.0	13.7	3,815.3	4,061.7	4,303.2	4,502.9	100.0	23.0
Male	1,578.3	49.0	1,789.0	48.9	13.3	1,862.7	1,989.4	2,115.0	2,219.2	49.3	24.0
Female	1,640.4	51.0	1,871.7	51.1	8.9	1,952.6	2,072.3	2,188.1	2,283.7	50.7	22.0
0-4 Years Old:											
Male	138.0	4.3	144.8	4.0	4.9	152.6	159.2	158.2	154.4	3.4	6.6
Female	132.1	4.1	137.9	3.8	4.4	145.5	152.0	151.0	147.4	3.3	6.9
TOTAL	270.1	8.4	282.7	7.7	4.7	298.0	311.2	309.2	301.8	6.7	6.8
5-19 Years Old:											
Male	503.1	15.6	486.9	13.3	3.2	479.7	476.6	485.7	500.2	11.1	2.7
Female	472.0	14.7	458.7	12.5	2.8	453.8	450.6	458.9	472.5	10.5	3.0
TOTAL	975.1	30.3	945.6	25.8	3.0	933.5	927.2	944.5	972.7	21.6	2.9
20-64 Years Old:											
Male	791.8	24.6	989.7	27.0	25.0	1,048.7	1,140.7	1,226.4	1,298.3	28.8	31.2
Female	843.9	26.2	1,032.9	28.2	22.4	1,091.0	1,167.0	1,237.7	1,298.6	28.8	25.7
TOTAL	1,635.7	50.8	2,822.6	55.3	23.7	2,139.9	2,307.7	2,464.0	2,596.9	57.7	28.4
65 Years and Older:											
Male	145.4	4.5	167.6	4.6	15.3	181.6	212.9	244.8	266.2	5.9	58.8
Female	192.5	6.0	242.2	6.6	25.8	262.3	302.7	340.6	365.2	8.1	50.8
TOTAL	337.9	10.5	409.8	11.2	21.3	443.9	515.6	585.4	631.5	14.0	54.1

Note: Detail may not add to totals due to rounding.

Source: U.S. Bureau of the Census, Census of Population: 1970, **Detailed Characteristics**, Final Report, PC(1)-D19 Kentucky, Washington, D.C., 1970; data for 1980 and projections for 1985-2000 are from Urban Studies Center, University of Louisville, forthcoming.

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Table A-2

Working Age Population (age 20-64) by Race and Sex, Kentucky, 1970, 1980, and Projected 1990, 1995 and 2000

(Thousands of Persons)

	1970	1980	Percent of Total	Percent Change 1970-80	1990	1995	2000	Percent of Total	Percent Change 1980-2000
White Male	745.0	920.0	45.5	23.5	1,054.3	1,130.2	1,194.1	46.0	29.8
White Female	787.0	957.6	47.3	21.7	1,079.1	1,143.0	1,198.1	46.0	25.1
TOTAL WHITE	1,532.0	1,877.6	92.8	22.6	2,133.4	2,273.2	2,392.2	92.1	27.4
Black Male	48.7	63.1	3.1	29.6	74.7	81.5	87.2	3.4	38.2
Black Female	56.4	68.9	3.4	22.2	77.8	82.5	86.6	3.3	25.7
TOTAL BLACK	105.2	132.0	6.5	25.5	152.5	164.0	173.9	6.7	31.7
Other Male	1.7	6.6	0.3	288.2	11.7	14.7	17.0	0.6	157.6
Other Female	2.0	6.4	0.3	220.0	10.1	12.2	13.9	0.5	117.2
TOTAL OTHER	3.6	13.0	0.6	261.1	21.8	26.9	30.9	1.2	137.7
Total Male	795.4	989.7	48.9	24.5	1,140.7	1,226.4	1,298.3	50.0	31.2
Total Female	845.4	1,032.9	51.1	22.2	1,167.0	1,237.7	1,298.6	50.0	25.7
TOTAL	1,640.8	2,022.6	100.0	23.3	2,307.7	2,464.0	2,596.9	100.0	28.0

Note: Detail may not add to totals due to rounding.

Source: U.S. Bureau of the Census, Census of Population: 1980, **General Population Characteristics**, Final Report PC80-1-B19 Kentucky, Washington, D.C., August, 1982; and author's projections for 1990-2000.

Table A-3

Household Composition, Kentucky, 1970, 1980 and Projected 1985-2000

(Thousands of Households)

	1970	1980	Percent Change 1970-80	1985	1990	1995	2000	Percent Change 1980-2000
TOTAL								
Unrelated Individuals	162.6	280.0	72.2	355.8	452.3	551.9	673.4	140.5
Families	825.2	983.4	19.2	1,054.1	1,129.8	1,210.4	1,296.7	31.9
Female-Headed Families	87.7	128.6	46.6	150.0	174.9	204.0	237.9	85.0
WHITE								
Unrelated Individuals	146.1	255.0	74.5	323.3	409.8	500.9	612.2	140.1
Families	774.3	920.7	18.9	985.9	1,055.8	1,130.0	1,209.4	31.4
Female-Headed Families	73.6	105.5	43.3	121.9	140.9	162.7	187.9	78.1
BLACK								
Unrelated Individuals	16.2	23.4	44.4	30.3	39.3	47.0	56.2	140.2
Families	50.0	58.5	17.0	62.3	66.3	70.5	75.0	28.2
Female-Headed Families	14.0	22.5	60.7	27.3	33.1	40.1	48.7	116.4
OTHER								
Unrelated Individuals	0.3	1.6	433.3	2.3	3.2	4.0	5.0	212.5
Families	0.9	4.2	366.7	5.7	7.7	9.4	11.4	171.4
Female-Headed Families	0.1	0.6	500.0	0.7	0.9	1.1	1.3	116.7

Source: U.S. Bureau of the Census, Census of Population, 1970, **Detailed Characteristics**, Final Report PC(1)-D19 Kentucky, Washington, D.C., 1972; Census of Population: 1980, **General Population Characteristics**, Final Report PC80-1-B19 Kentucky, Washington, D.C., August, 1982; and author's projections for 1985-2000.

Personal Income by Source, Kentucky, 1974 and 1983

(Millions of Dollars)

Source	1974	Percent of Total	1983	Percent of Total	Average Annual Compound Growth Rate
By Type					
Wage and Salary Disbursements	9,349	61.6	19,467	57.2	8.5
Other Labor Income	833	5.5	2,305	6.8	12.0
Farm Proprietors' Income	640	4.2	461	1.4	- 3.6
Nonfarm Proprietors' Income	979	6.5	1,637	4.8	5.9
By Industry					
Farm	740	4.9	612	1.8	- 2.1
Nonfarm	11,061	72.9	23,259	68.3	8.6
Private	9,072	59.8	19,041	56.0	8.6
Ag. Svcs., Forestry, Fisheries	27	0.2	103	0.3	16.0
Mining	780	5.1	1,690	5.0	9.0
Construction	707	4.7	1,165	3.4	5.7
Manufacturing	3,163	20.8	5,923	17.4	7.2
Transportation and Public Utilities	851	5.6	1,848	5.4	9.0
Wholesale Trade	553	3.6	1,302	3.8	10.0
Retail Trade	1,155	7.6	2,288	6.7	7.9
Finance, Insurance and Real Estate	403	2.7	1,035	3.0	11.0
Services	1,433	9.4	3,687	10.8	11.1
Government	1,989	13.1	4,218	12.4	8.7
TOTAL LABOR AND PROPRIETORS' INCOME BY PLACE OF WORK	11,801	77.8	23,871	70.1	8.1
Less: Personal Cont. for Social Insurance	- 612	4.0	- 1,417	4.2	9.8
Plus: Residence Adjustment	103	0.7	198	0.6	7.5
Plus: Dividends, Interest, Rent	1,749	11.5	5,412	15.9	13.4
Plus: Transfer Payments	2,132	14.1	5,966	17.5	12.1
Equals: PERSONAL INCOME BY PLACE OF RESIDENCE	15,174	100.0	34,030	100.0	9.4
Per Capita Personal Income	$ 4,524		$ 9,101		8.1

Source: 1974 data from Bureau of Economic Analysis, U.S. Department of Commerce, **Local Area Personal Income 1974-79**, Vol. I, Washington, D.C., June, 1981; 1983 data and averages of unpublished quarterly estimates by the Bureau of Economic Analysis.

KENTUCKY ECONOMIC DEVELOPMENT CORPORATION

The Kentucky Economic Development Corporation (KEDC) was formed in January, 1981 "to promote, foster, and stimulate the economic development of the Commonwealth of Kentucky". It is a statewide non-profit development corporation. By decision of the Board of Directors, KEDC is financed through private contributions and operates without government support.

KEDC's Board of Directors is comprised of 36 business, industrial, and community leaders representing various sections of the State. A 13-member Executive Committee is concerned with day-to-day operations of the corporation.

In order to achieve the corporation's chartered purpose, three principal types of activities are undertaken:

1. Engage in high-level promotion to encourage the expansion of firms already situated in the Commonwealth of Kentucky and to attract new firms to locate within the State. This promotion is performed at the request of the Secretary of Commerce. Activities include Board member visits to corporate officials, briefings, site visits, entertainment, and transportation.

2. Perform or sponsor special studies and analyses related to economic development. The results of these studies and analyses are usually made available to the Executive and Legislative Branches of Kentucky State Government.

3. Conduct a continuing oversight of the State's economic development programs, and act as advisors to the Governor, the Secretary of Commerce, and other State officers engaged in economic development programs.

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